

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

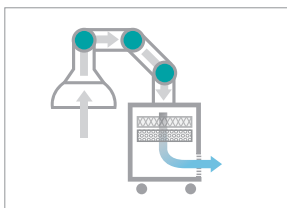
Structural Functional Features

- 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

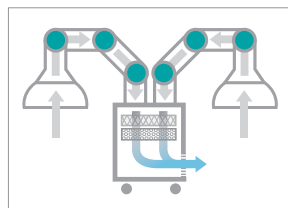
- Pre-filter built in to extend other filter life.
- Up to 2 filters can be installed depending on the material used. (option)
 - ※ Example of filter configuration
HEPA Filter for removing dust and carbon filter for removing/neutralizing harmful gas.
- Soft wheels for easy movement and fixing.
- Low fan speed notification when fan speed is low.

Examples Of Diverse Applications



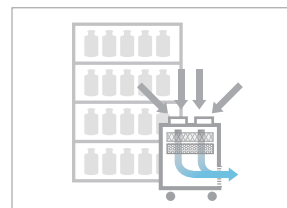
Single Arm

General configuration for 100% suction performance.



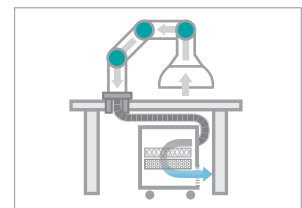
Dual Arm

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 m ³ /h			
Noise Level	60 dB			
Electric Requirement	230V, 50/60Hz, 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

Accessories **Page 193** Extraction Arm, Hood, Filter, Table Bracket, Gas Detector & Tubes

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 194](#) for details.

Hood

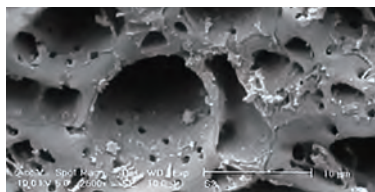
- Φ50 hood mounted on extraction arm as standard. (selection of white or clear)
- Shape selected according to the nature of the fumes and gases used.
- Material selected according to the work type.
- Strong and chemical resistant using PP and SBC materials.

	Type	Description
Shape	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 195](#) 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.



Electron microscope image of Lab Companion's carbon filter.

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 ₂ S and CH ₃ COOH	AAAB6356
Formaldehyde	Filters formaldehyde, acetate aldehyde, etc.	AAAB6358
Ammonia / Amines	Filters basic gases such as NH ₃ , (CH ₃) ₃ N, 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 chemical used.

※ For the built-in pre-filter, the Particle is filtered first to extend the life of the other 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

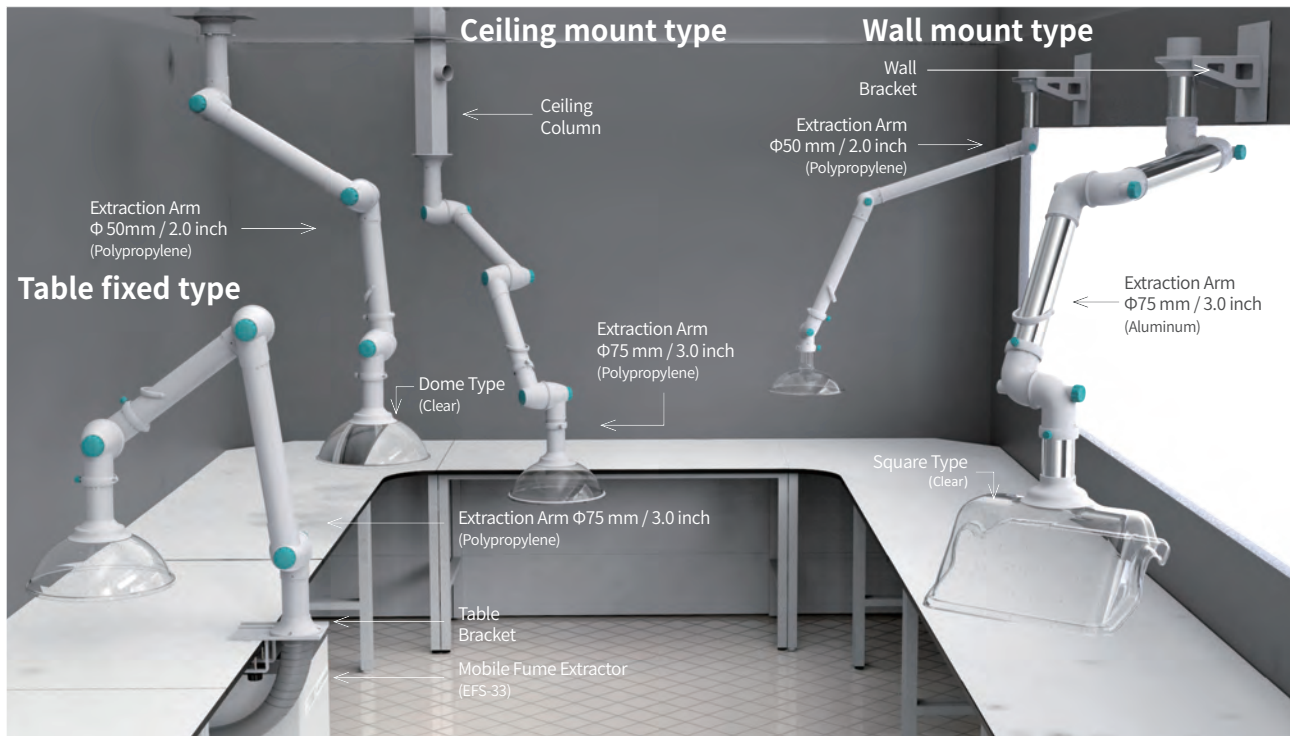
Gas Detector & Tubes

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

	Item	Cat. No.
Gas Detector	KITAGAWA AP-20	AAAB2531
	Benzene, GASTEC-121SP (0.5~10 ppm)	EAA1550
Gas Detecting Tube	Toluene, GASTEC-122L (1~100 ppm)	EAA1551
	Acetic acid, GASTEC-81L (0.125~25 ppm)	EAA1552
	Chloroform, GASTEC-137 (4~400 ppm)	EAA1553
	Formaldehyde, GASTEC-91LL (0.05~1 ppm)	EAA1554
	Ammonia, GASTEC-3L (0.5~60 ppm)	EAA1555

Extraction Arm Hood

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



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 $\Phi 50$ 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

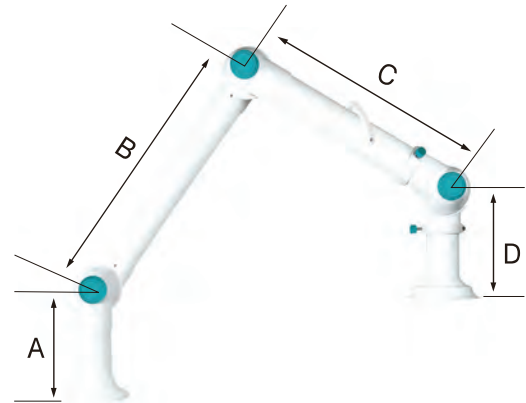


Damper for controlling wind speed

Extraction Arm

	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	640 / 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	640 / 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 / 44.8	1.0 / 2.2	AAAB6554
	3 Joints	AH5-3160	250 / 9.8	640 / 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	2 Joints	AH5-2110C	250 / 9.8	N/A	640 / 25.2	250 / 9.8	1140 / 44.8	1.0 / 2.2	AAAB6555
	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

Hood

Image	Type	Material	Description
	Basic type	Polypropylene	<ul style="list-style-type: none"> When the emission range of the source is narrow. When the source can be collected at close range.
	Dome type (Clear)	Styrene butadiene copolymer	<ul style="list-style-type: none"> When the emission range of the source is wide. Used for capturing light gas.
	Dome type (White)	Polypropylene	
	Square type (Clear)	Styrene butadiene copolymer	<ul style="list-style-type: none"> When heavy gas is collected, one side is supported on the table and used like a shield.
	Square type (White)	Polypropylene	
	Dome & Square Magnetic System (Clear)	Styrene butadiene copolymer	<ul style="list-style-type: none"> Applied a magnet on the connection part, easy to change a hood depending on the gas properties.
	Hood type (White)	Polyethylene	<ul style="list-style-type: none"> Compact total hood form, securely blocking the user's gas inhalation.



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.

Recommended configuration of Mobile Fume Extractor for each application

Application	Details	Arm Material	Recommended Hood Type	Hood Position / Airflow Velocity(m/s)	Recommended Filter
Medical / Dentistry / Veterinary	Fumes from laser treatment	Aluminum, PP	50Φ Basic	Side / 0.5	HEPA & Carbon
	Dentist dust and chemical uses		75Φ Basic or Chamber	Side / 0.5	HEPA & Carbon
	Aerosol from anesthetic		75Φ Dome or Square	Side / 0.5	Carbon or HEPA & Carbon
	Use of biopsy chemicals in clinical laboratory		Chamber	Surround / 0.4	Carbon or HEPA & Carbon
Pharmaceuticals	Dust and fume from odorous chemicals in the pharmaceutical laboratory	Aluminum	75Φ Basic	Side / 1.0 Above / 1.2	HEPA or HEPA & Carbon
			Chamber	Surround / 0.7	HEPA
Metal / Acrylic craft	Hazardous fumes and dust from molten metal and welding during the metal cutting process	Aluminum, PP	Basic or Dome	Dust: Side / 1.2 Fume: Side / 0.5	HEPA or HEPA & Carbon
Electronic engineering	Fumes from brazing and soldering	Aluminum	75Φ Dome or 50Φ Basic	Side / 0.5	Carbon or HEPA & Carbon
Laboratory	Science experimental education	Aluminum, PP	75Φ Dome	Dust: Side / 1.2 Fume: Side / 0.5	Carbon or HEPA & Carbon
			Chamber (For Formalin Users)	Surround / 0.4	Carbon or HEPA & Carbon
Chemicals/Biologicals / Agricultural	Hazardous chemicals from acid and base	PP	75Φ Dome or Square	Dust: Side / 1.2 Fume: Side / 0.5	Carbon or HEPA & Carbon
			Chamber (For Formalin Users)	Surround / 0.4	



Safety Storage & Cabinet