



Environmental solution - Dust

2022 Dust collector



OHM ELECTRIC CO., LTD.

<https://www.ohm.jp/>

AT3 series

DUST CUBE

attained a higher state

Evolved AT panel visualizes operation

Features of AT3 line

“AT3 panel” makes it easier to see how the dust collector is operating



1 Organic LED (OLED)

Differential/External/Suction/Exhaust pressures, blower rotation speed and operating hours are indicated as numerical values. Alarm functions for filter clogging or off-temperature are also provided.

2 Filter clogging notification

The timing for filter clogging notification can be set in five different levels to suit your need.



DUST CUBEDUST
CUBE

General information		003	Dust collector
High volume type for clean room	ODU-080HC-AT3 ODU-450HC-AT3	007	High volume for clean room
High-pressure type for clean room	ODU-080HP-AT3 ODU-080DSA-AT3 ODU-1200HP-AT3 ODU-1000DSA-AT3	011	High pressure for clean room
High volume type for general environment	OSK-060ACC-AT3 OSK-250-B OSK-250-DS-B OSK-450-B OSK-750-B	019	High volume for gen. env.
Maintenance parts/Option		025	Option
Technical data		027	Technical data

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Operation panel	004
Application	005
Model selection	027

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Quick reference table



Model		High volume type	High pressure type	Fume (Laser, soldering)	Deodorizing	General environment	Clean room use	Operation panel	Remote operation	Filter pack	HEPA filter	RoHS compliance	Suction port dia.
H.V. type for clean room	ODU-080HC-AT3 P007	●				●	●	●	●	●	□	●	65
	ODU-450HC-AT3 P009	●				●	●	●	●	●	□	●	100
H.P. type for clean room	ODU-080HP-AT3 P011		●			●	●	●	●	●	□	●	65
	ODU-1200HP-AT3 P013		●			●	●	●	●	●	●	●	75
	ODU-080DSA-AT3 P015		●	●	●	●	●	●	●		□	●	65
	ODU-1000DSA-AT3 P017		●	●	●	●	●	●	●		●	●	75
H.V. type for general env.	OSK-060ACC-AT3 P019	●		●	●	●		●	●			●	65
	OSK-250-B P021	●				●		●	●	●		●	75
	OSK-450-B P021	●				●		●	●	●		●	100
	OSK-750-B P021	●				●		●	●	●		●	125
	OSK-250-DS-B P023	●		●	●	●		●	●	●		●	75

□ marked items are optional

Application

- DUST CUBE
- Dust collector
- High volume for clean room
- High pressure for clean room
- High volume for gen. env.
- Option
- Technical data







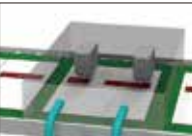

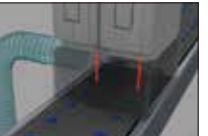

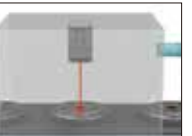
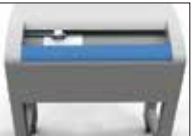


Examples	For eliminating settled dust		with air blowing			
Cell phones before packaging	Chips and sensors	Pachinko panels	Instrument panel	Flying ink powders	LCD panels	
Drink bottle caps	Cosmetic bottles and containers	PCB surfaces	PCB surfaces	In IR filter glass bonding process	LCD panels	
Cell phone housings before painting	Molds	Semiconductor devices	Various containers	PET bottle interior	Drug medicine surfaces	
Hard disk interiors	Car bumpers	DVD disks	Parts feeders	LCD panels		

Examples	For eliminating settled dust		without air blowing			
Molded parts	In measurement of drug medicines	In measurement of drug medicines	In conveying PET bottles	In drilling substrates	Substrate dividing machines	
In drilling work of substrate dividers	For excess powders in compression molding	PCBs surfaces after parts mounting	Powders from press fitting process	In cardboard cutting process	In cutting lithium battery electrodes	
Toner cartridge roller of laser printers	Film surfaces	In punching labels of PET bottles	For flying dust in labelling process	For metallic dust from lithium ion electrodes	In grinding cellamic balls	
Film surfaces	Substrate dividing machines	For surrounding part of films	For film section	Using with a brush cleaner	In compression molding process	
For collecting dust with thin tubes						


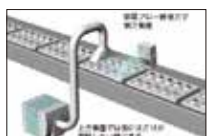





















High pressure models
See ▶ pages 011 / 013

Examples For eliminating laser fumes

					
Laser fume from polarizer cutting	Laser fume in cutting electrodes of lithium ion batteries	Fume generated by LCD surface processing	Fume generated by marking light guide plate	Laser marker fumes	In laser marking on microcomputers
					
In ink stripping marking on cardboard boxes	In open-date marking on cup noodles	In laser marking on condensers	In open-date marking on packages	Laser marking on brake drums	In engraving marking on flexographic plate
			For using with laser markers See ▶ pages 015 / 017/019/023		
In laser marking on medicine labels					

Examples For eliminating airborne dust before settlement

					
When cutting optical fiber cables	For neutralization and cleaning of cell phone surface	For metal particles in assembling car radios	For polishing process of teflon	In neutralizing and air blowing on pachinko panels	For grinding machines
					
For labelling process	Before attaching LCD panels	For precise processing of precious metals	For plaster casting of dentures	For surface grinding machines	For grinding dust
					
In smoothing process of pottery bottoms	For metal particles from screwing navigation devices	In deburring small plastic parts	For keeping dust away from desiccator	For cutting and boring by dividing machines	For cutting and boring by board mounting machines
					
For cutting and boring by dividing machines	In grinding hard contact lenses				

 High volume models
See ▶ pages 007 / 009 / 023

Clean room use - High volume type Compact dust collector

ODU-080HC-AT3

Captures airborne particulates



RoHS

Usage environment



Type



Features



Technical data

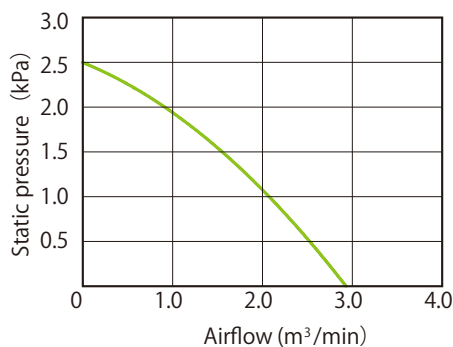
▶▶ P027~

Model/Specifications

Model	ODU-080HC-AT3
Max. air flow	2.9 m ³ /min
Max. static pressure	2.5kPa
Collection efficiency	99% or more (for particles of 0.3 μm or larger)
Rated voltage	Single phase, 100VAC 50/60Hz
Rated current	2.4A
Working temperature	0 to + 40°C
Working humidity	Not higher than 80%RH (free from condensation)
Noise	58dB (A)
Max. intake air temperature	+ 40°C
Regulatory compliance	RoHS
Weight	10.3kg
Accessory	Power cable 3m, Instruction manual 1 copy

● Supply voltage should be as specified above with fluctuations within 10%.

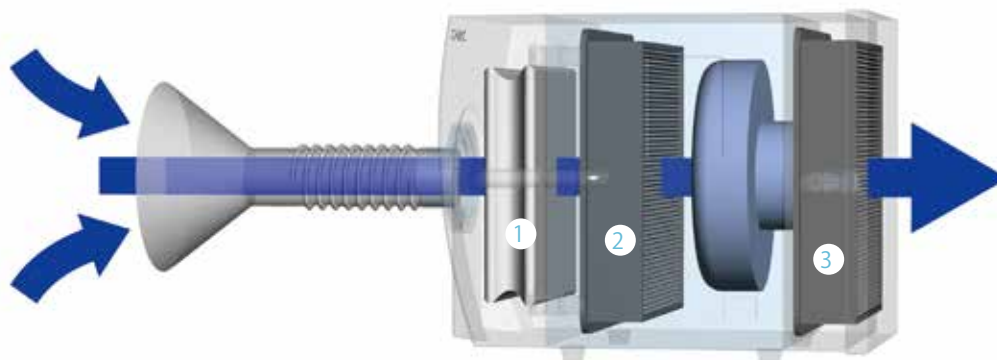
Performance curve



⚠ Caution

- Read the instruction manual carefully before use.
- DUST CUBE is designed for inhaling common dust or odor. Never use this product for inhaling the following substances.
 - Flammable substances including gasoline, thinner, benzene, kerosene and organic solvent.
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances
 - Dusts containing sparks generated by high-speed cutter, grinder or other machinery
 - Cigarette ash
 - Liquid like water, oil and chemicals
 - Inhaling them will lead to fire, breakage or electric leakage.
- Do not use this product in a place where flammable or corrosive gasses or any matters that can destroy insulation generate or permeate.
- This product is for indoor use only.
- The site of use should be free from vibration and impact.
- Make sure that the packaging is not damaged on delivery and contact your supplier, if any.

ODU-080HC-AT3 structure



1 Primary filter

A filter pack consisting of five layer nonwoven polypropylene fabric. Each layer has different air permeability, and thus filter is not easily clogged or torn off.

2 Secondary filter

Consists of a nonwoven polypropylene fabric filter formed into pleated shape with a frame made of ABS. More than 99% of 0.3 μm or larger particles can be removed at this stage.

3 Tertiary filter

The same filter with the secondary filter is used. This filter collects fine particles uncollected in the 1st and 2nd stages or generated in the fan motor chamber. Meets clean class 100,000 to 10,000 (1,000 to 100 when the HEPA filter is attached)

Operation panel



- Enter key
- Cursor key
- Mode Select key
- Error lamp
- ON/OFF

See P004

Remote control

By connecting an optional remote cable, remote operation is enabled.

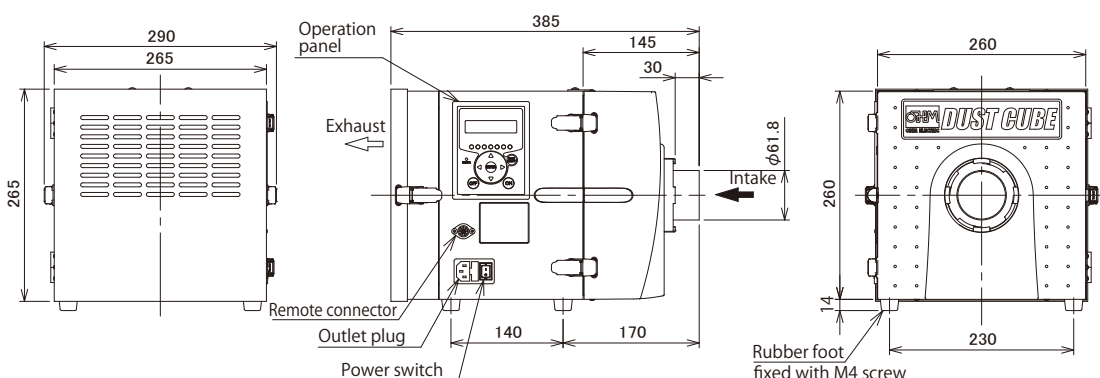


Remote cable entry on dust collector side

1. Operation input
2. Operation pressure output (1-5 DCV)
3. Filter clogging output
4. Remote operation input
5. Operation output
6. Abnormality output
7. Capacity level change input (0.6-5 DCV)
8. GND

- ON/OFF switching
- Change of capacity level
- Enables to output the signals of operation pressure, filter clogging, operation and abnormality

Outline drawing



Maintenance parts

Replacement filter		Pri.	2nd	3rd	Purchase unit
Filter pack	FB-25	○			1 set (5 pcs)
High performance filter	CHF-2525-50		○	○	1 piece

See P025

Option

HEPA filter	Purchase unit
HEP-2525-50	1 piece

Use of a HEPA filter is recommended when 1000 to 100 Clean class is desired
See P025

Remote cable	Length	Detachable flange	Duct dia.
RC-03M	3m	FRJ-D-38-35-92	φ 38
RC-05M	5m	FRJ-D-50-35-92	φ 50

See P026

DUST CUBE

Clean room use - High volume type Compact dust collector

ODU-450HC-AT3

Captures airborne particulates



RoHS

Usage environment



Type



Features



Technical data

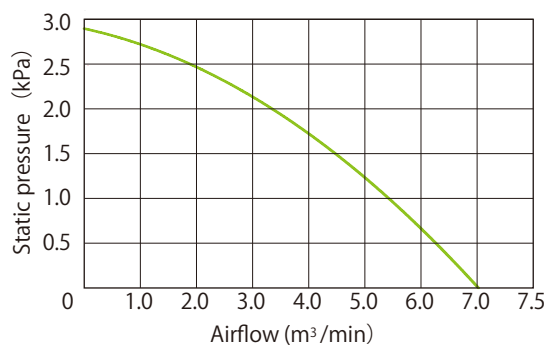
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Model/Specifications

Model	ODU-450HC-AT3
Max. air flow	7.0 m ³ /min
Max. static pressure	2.9kPa
Collection efficiency	99% or more (for particles of 0.3 μm or larger)
Rated voltage	Single phase, 100VAC 50/60Hz
Rated current	9.8A
Working temperature	0 to + 40°C
Working humidity	Not higher than 80%RH (free from condensation)
Noise	73dB(A)
Max. intake air temperature	+ 40°C
Regulatory compliance	RoHS
Weight	29.0kg
Accessory	Power cable 3m, Instruction manual 1 copy

● Supply voltage should be as specified above with fluctuations within 10%.

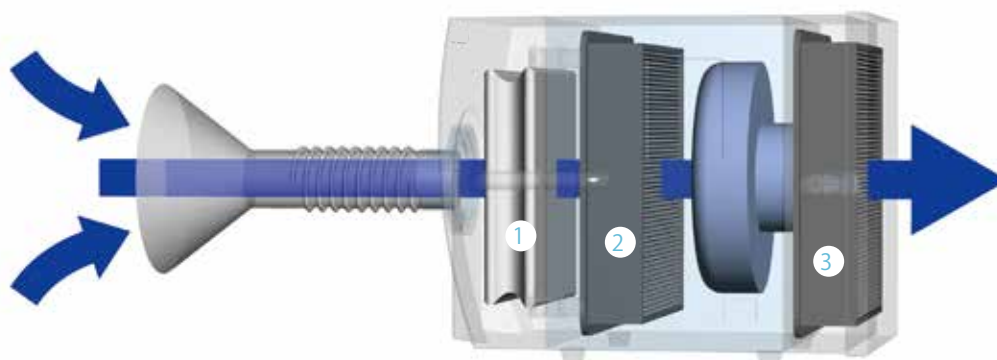
Performance curve



Caution

- Read the instruction manual carefully before use.
- DUST CUBE is designed for inhaling common dust or odor. Never use this product for inhaling the following substances.
 - Flammable substances including gasoline, thinner, benzene, kerosene and organic solvent.
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances
 - Dusts containing sparks generated by high-speed cutter, grinder or other machinery
 - Cigarette ash
 - Liquid like water, oil and chemicals
 - Inhaling them will lead to fire, breakage or electric leakage.
- Do not use this product in a place where flammable or corrosive gasses or any matters that can destroy insulation generate or permeate.
- This product is for indoor use only.
- The site of use should be free from vibration and impact.
- Make sure that the packaging is not damaged on delivery and contact your supplier, if any.

ODU-450HC-AT3 structure



1 Primary filter

A filter pack consisting of five layer nonwoven polypropylene fabric. Each layer has different air permeability, and thus filter is not easily clogged or torn off.

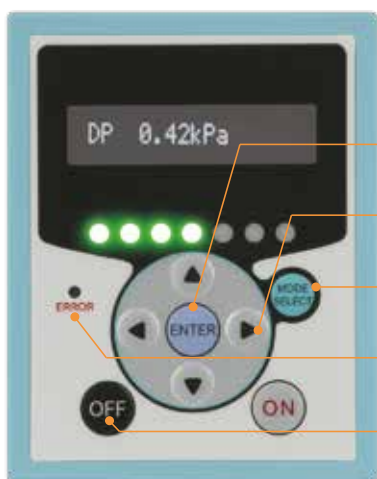
2 Secondary filter

Consists of a nonwoven polypropylene fabric filter formed into pleated shape with a frame made of ABS. More than 99% of 0.3 μm or larger particles can be removed at this stage.

3 Tertiary filter

The same filter with the secondary filter is used. This filter collects fine particles uncollected in the 1st and 2nd stages or generated in the fan motor chamber. Meets clean class 100,000 to 10,000 (1,000 to 100 when the HEPA filter is attached)

Operation panel



- Enter key
- Cursor key
- Mode Select key
- Error lamp
- ON/OFF

See P004

Remote control

By connecting an optional remote cable, remote operation is enabled.

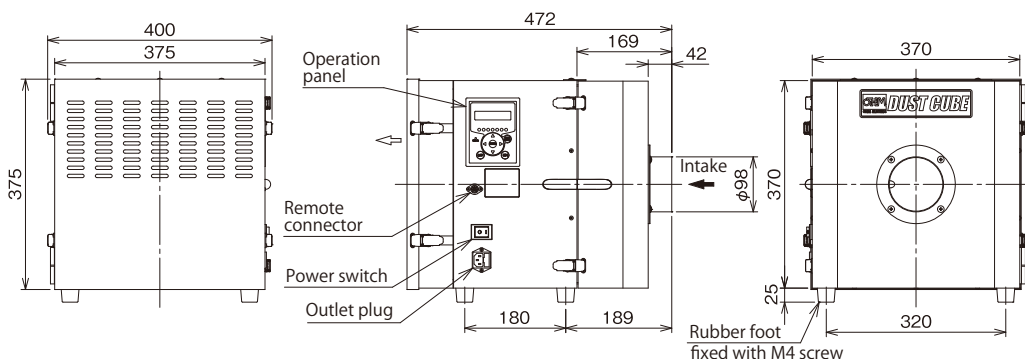


Remote cable entry on dust collector side

1. Operation input
2. Operation pressure output (1-5 DCV)
3. Filter clogging output
4. Remote operation input
5. Operation output
6. Abnormality output
7. Capacity level change input (0.6-5 DCV)
8. GND

- ON/OFF switching
- Change of capacity level
- Enables to output the signals of operation pressure, filter clogging, operation and abnormality

Outline drawing



Maintenance parts

Replacement filter		Pri.	2nd	3rd	Purchase unit
Filter pack	FB-700-22	○			1 set (5 pcs)
High performance filter	CHF-3535-70		○	○	1 piece

See P025

Option

HEPA filter	Purchase unit	Remote cable	Length
HEP-3535-69	1 piece	RC-03M	3m
		RC-05M	5m

Use of a HEPA filter is recommended when 1000 to 100 Clean class is desired

See P025

See P026

DUST CUBE

Clean room use - High pressure type Compact dust collector

ODU-080HP-AT3

Sucks up fallen particulates by high pressure



RoHS

Usage environment



Type



Features



Technical data

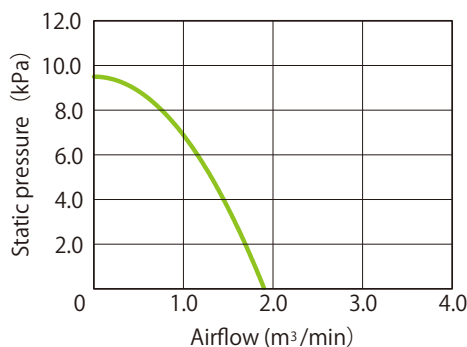
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Model/Specifications

Model	ODU-080HP-AT3
Max. air flow	1.9m ³ /min
Max. static pressure	9.3kPa
Collection efficiency	99% or more (for particles of 0.3 μm or larger)
Rated voltage	Single phase, 100VAC 50/60Hz
Rated current	7.6A
Working temperature	0 to + 40°C
Working humidity	Not higher than 80%RH (free from condensation)
Noise	70dB(A)
Max. intake air temperature	+ 40°C
Regulatory compliance	RoHS
Weight	10.0kg
Accessory	Power cable 3m, Instruction manual 1 copy

● Supply voltage should be as specified above with fluctuations within 10%.

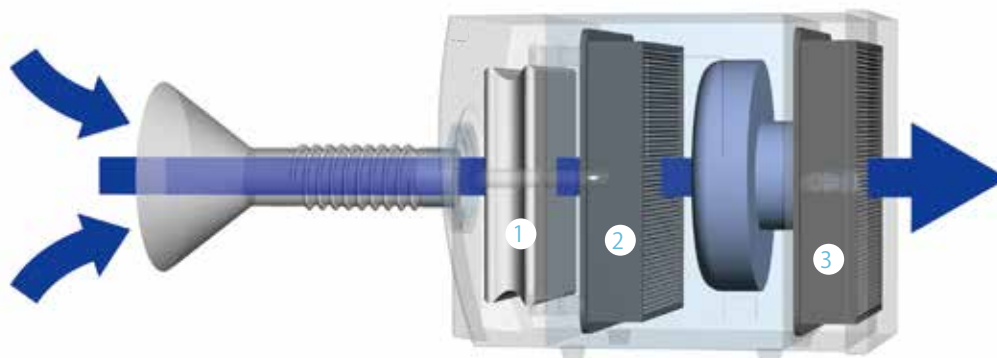
Performance curve



Caution

- Read the instruction manual carefully before use.
- DUST CUBE is designed for inhaling common dust or odor. Never use this product for inhaling the following substances.
 - Flammable substances including gasoline, thinner, benzene, kerosene and organic solvent.
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances
 - Dusts containing sparks generated by high-speed cutter, grinder or other machinery
 - Cigarette ash
 - Liquid like water, oil and chemicals
 - Inhaling them will lead to fire, breakage or electric leakage.
- Do not use this product in a place where flammable or corrosive gasses or any matters that can destroy insulation generate or permeate.
- This product is for indoor use only.
- The site of use should be free from vibration and impact.
- Make sure that the packaging is not damaged on delivery and contact your supplier, if any.

ODU-080HP-AT3 structure



1 Primary filter

A filter pack consisting of five layer nonwoven polypropylene fabric. Each layer has different air permeability, and thus filter is not easily clogged or torn off.

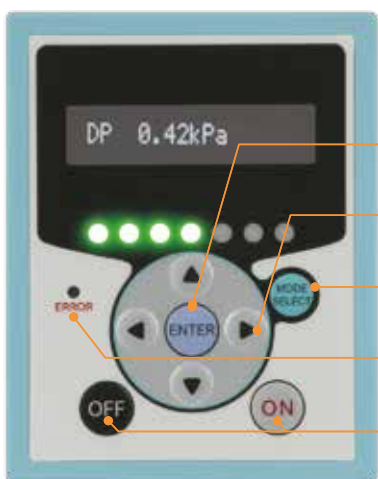
2 Secondary filter

Consists of a nonwoven polypropylene fabric filter formed into pleated shape with a frame made of ABS. More than 99% of 0.3 μm or larger particles can be removed at this stage.

3 Tertiary filter

The same filter with the secondary filter is used. This filter collects fine particles uncollected in the 1st and 2nd stages or generated in the fan motor chamber. Meets clean class 100,000 to 10,000 (1,000 to 100 when the HEPA filter is attached)

Operation panel



- Enter key
- Cursor key
- Mode Select key
- Error lamp
- ON/OFF

See P004

Remote control

By connecting an optional remote cable, remote operation is enabled.

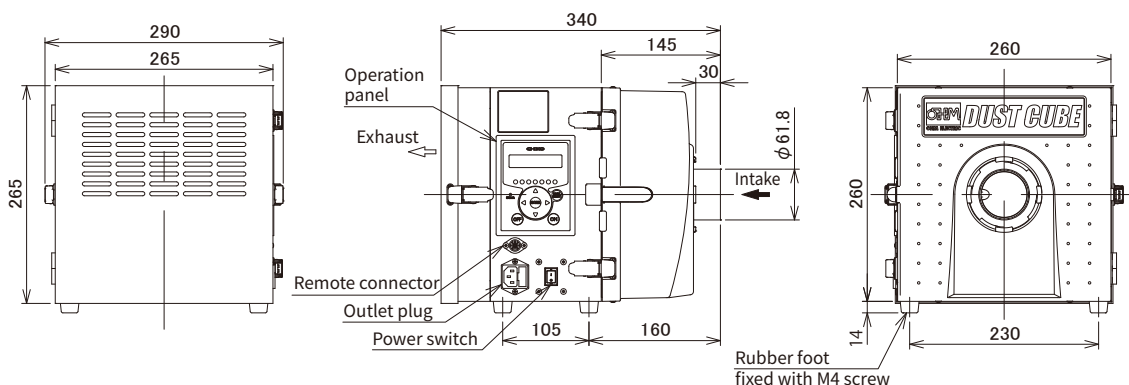


Remote cable entry on dust collector side

1. Operation input
2. Operation pressure output (1-5 DCV)
3. Air volume shortage output
4. Remote operation input
5. Operation output
6. Pressure shortage output
7. Performance level change input (0.6-5 DCV)
8. GND

- ON/OFF switching
- Change of capacity level
- Enables to output the signals of operation pressure, air volume shortage, operation and pressure shortage

Outline drawing



Maintenance parts

Replacement filter		Pri.	2nd	3rd	Purchase unit
Filter pack	FB-25	○			1 set (5 pcs)
High performance filter	CHF-2525-50		○	○	1 piece

See P025

Option

HEPA filter	Purchase unit
HEP-3535-69	1 piece

Use of a HEPA filter is recommended when 1000 to 100 Clean class is desired
See P025

Remote cable	Length	Detachable flange	Duct dia.
RC-03M	3m	FRJ-D-38-35-92	φ38
RC-05M	5m	FRJ-D-50-35-92	φ50

See P026

Clean room use - High pressure type Compact dust collector

ODU-1200HP-AT3

Sucks up fallen particulates by high pressure



RoHS

Usage environment



Type



Features



Technical data

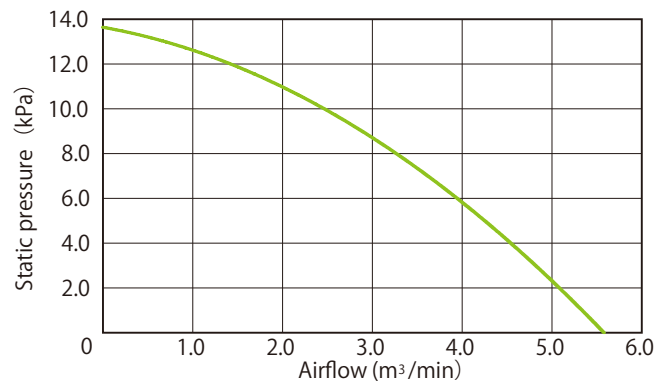
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Model/Specifications

Model	ODU-1200HP-AT3
Max. air flow	5.5m ³ /min
Max. static pressure	13.5kPa
Collection efficiency	99.97% or more (for particles of 0.3 μm or larger)
Rated voltage	Single phase, 200VAC 50/60Hz
Rated current	9.5A
Working temperature	0 to + 40°C
Working humidity	Not higher than 80%RH (free from condensation)
Noise	77dB(A)
Max. intake air temperature	+ 40°C
Regulatory compliance	RoHS
Weight	26.7kg
Accessory	Power cable 3m, Instruction manual 1 copy

● Supply voltage should be as specified above with fluctuations within 10%.

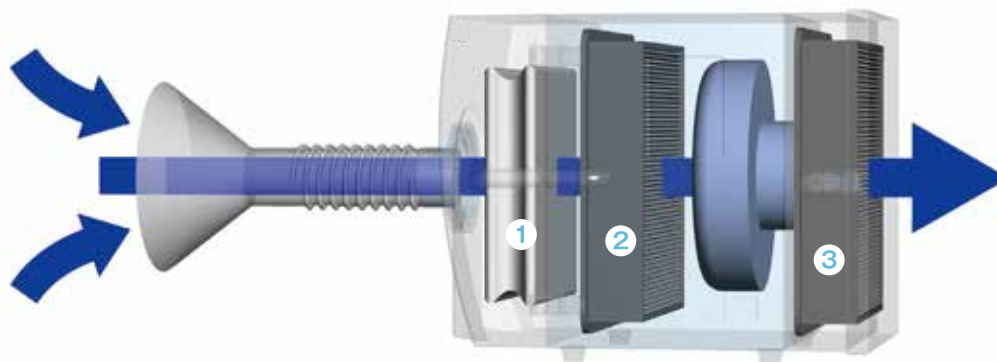
Performance curve



⚠ Caution

- Read the instruction manual carefully before use.
- DUST CUBE is designed for inhaling common dust or odor. Never use this product for inhaling the following substances.
 - Flammable substances including gasoline, thinner, benzene, kerosene and organic solvent.
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances
 - Dusts containing sparks generated by high-speed cutter, grinder or other machinery
 - Cigarette ash
 - Liquid like water, oil and chemicals
 - Inhaling them will lead to fire, breakage or electric leakage.
- Do not use this product in a place where flammable or corrosive gasses or any matters that can destroy insulation generate or permeate.
- This product is for indoor use only.
- The site of use should be free from vibration and impact.
- Make sure that the packaging is not damaged on delivery and contact your supplier, if any.

ODU-1200HP-AT3 structure



1 Primary filter

A filter pack consisting of five layer nonwoven polypropylene fabric. Each layer has different air permeability, and thus filter is not easily clogged or torn off.

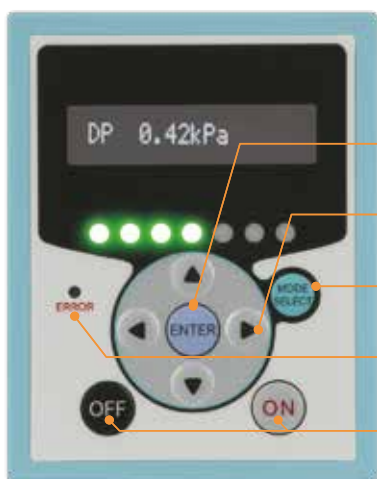
2 Secondary filter

Consists of a nonwoven polypropylene fabric filter formed into pleated shape with a frame made of ABS. More than 99% of 0.3 μm or larger particles can be removed at this stage.

3 Tertiary filter (HEPA filter)

This filter collects fine particles uncollected in the 1st and 2nd stages or generated in the fan motor chamber. Meets clean class 1,000.

Operation panel



- Enter key
- Cursor key
- Mode Select key
- Error lamp
- ON/OFF

See **P004**

Remote control

By connecting an optional remote cable, remote operation is enabled.

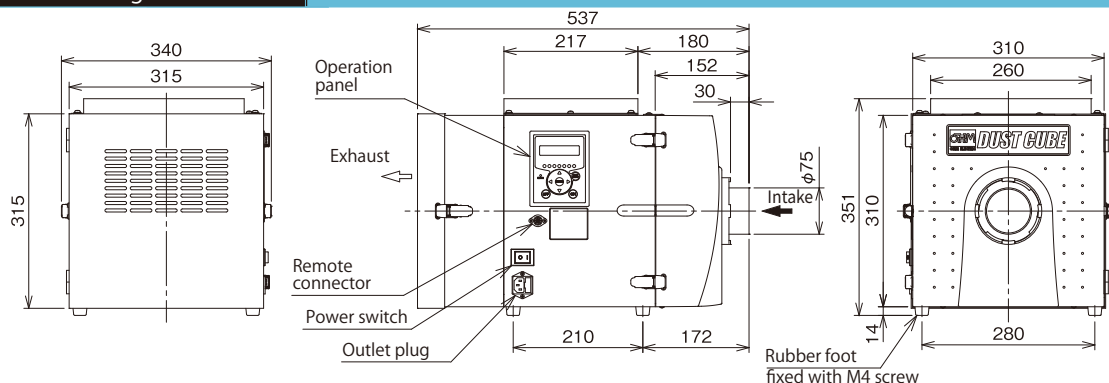


Remote cable entry on dust collector side

1. Operation input
2. Operation pressure output (1-5 DCV)
3. Air volume shortage output
4. Remote operation input
5. Operation output
6. Pressure shortage output
7. Performance level change input (0.6-5 DCV)
8. GND

- ON/OFF switching
- Change of capacity level
- Enables to output the signals of operation pressure, air volume shortage, operation and pressure shortage

Outline drawing



Maintenance parts

Replacement filter		Pri.	2nd	3rd	Purchase unit
Filter pack	FB-30	○			1 set (5 pcs)
High performance filter	CHF-3030-50		○		1 piece
Motor cooling exst filter	CHF-1293-33				1 piece
HEPA filter	HEP-3030-69			○	1 piece

See **P025**

Option

Remote cable	Length	Detachable flange	Duct dia.
RC-03M	3m	FRJ-D-38-35-108	φ38
RC-05M	5m	FRJ-D-50-35-108	φ50
		FRJ-D-65-35-108	φ65

See **P026**

See **P026**

Laser marker use Clean room use - High pressure type Compact dust collector

ODU-080DSA-AT3

For soldering and laser fume extraction



RoHS2

Usage environment



Type



Features



Technical data

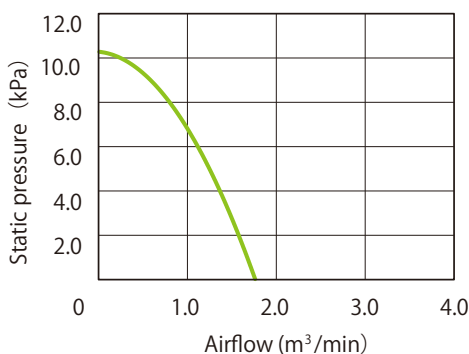
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Model/Specifications

Model	ODU-080DSA-AT3
Max. air flow	1.8m ³ /min *
Max. static pressure	10.3kPa
Collection efficiency	99% or more (for particles of 0.3 μm or larger)
Rated voltage	Single phase, 100VAC 50/60Hz
Rated current	6.3A
Working temperature	0 to + 40°C
Working humidity	Not higher than 80%RH (free from condensation)
Noise	67dB(A)
Max. intake air temperature	+ 40°C
Regulatory compliance	RoHS2
Weight	22.2kg
Accessory	Power cable 3m, Instruction manual 1 copy

● Supply voltage should be as specified above with fluctuations within 10%. *1.75 m³/min when zeolite is attached

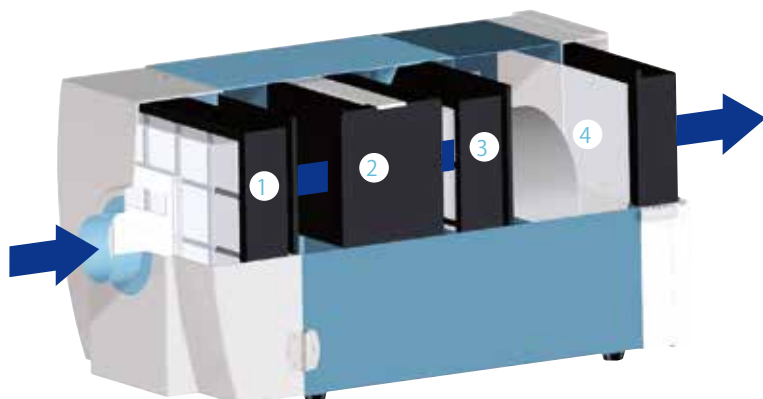
Performance curve



Caution

- Read the instruction manual carefully before use. DUST CUBE is designed for inhaling common dust or odor. Never use this product for inhaling the following substances.
 - Flammable substances including gasoline, thinner, benzene, kerosene and organic solvent.
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances
 - Dusts containing sparks generated by high-speed cutter, grinder or other machinery
 - Cigarette ash
 - Liquid like water, oil and chemicals
 - Inhaling them will lead to fire, breakage or electric leakage.
- Do not use this product in a place where flammable or corrosive gasses or any matters that can destroy insulation generate or permeate.
- This product is for indoor use only.
- The site of use should be free from vibration and impact.
- Make sure that the packaging is not damaged on delivery and contact your supplier, if any.

ODU-080DSA-AT3 structure



1 Primary filter (Pre-coating & deodorizing)

The primary filter is pre-coated with zeolite particles to keep fume away from attaching on it directly.

2 Active carbon cassette

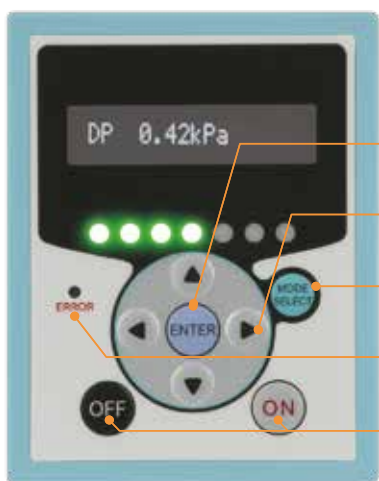
The active carbon cassette is filled with granular active carbons made of natural coconut husks. Active carbons are replaceable.

3 Secondary Filter (High-performance filter)

4 Tertiary filter (High performance filter)

To satisfy Clean Class 100,000 to 10,000

Operation panel



- Enter key
- Cursor key
- Mode Select key
- Error lamp
- ON/OFF

See **P004**

Remote control

By connecting an optional remote cable, remote operation is enabled.

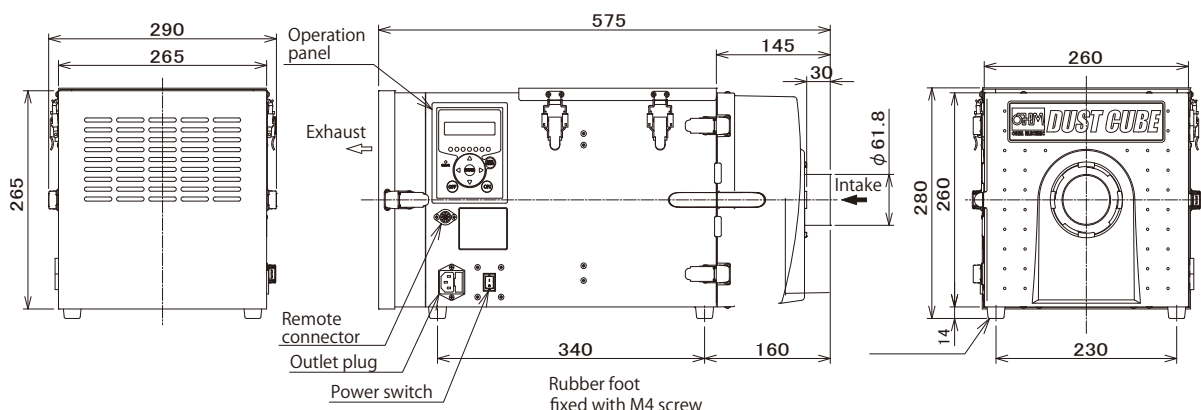


Remote cable entry on dust collector side

1. Operation input
2. Operation pressure output (1-5 DCV)
3. Air volume shortage output
4. Remote operation input
5. Operation output
6. Pressure shortage output
7. Performance level change input (0.6-5 DCV)
8. GND

- ON/OFF switching
- Change of capacity level
- Enables to output the signals of operation pressure, air volume shortage, operation and pressure shortage

Outline drawing



Maintenance parts

Replacement filter		Pri.	2nd	3rd	Purchase unit
Filter pack	HDF-2525-90-ZEO	○			1 piece
High performance filter	CHF-2525-50		○	○	1 piece

Deodorant		Purchase unit
Granular active carbon	YAC-2600	1 set (2.6kg) x 4 bags

See **P025**

Option

HEPA filter	Purchase unit
HEP-2525-50	1 piece

Use of a HEPA filter is recommended when 1000 to 100 Clean class is desired

See **P025**

Remote cable	Length	Detachable flange	Duct dia.
RC-03M	3m	FRJ-D-38-35-92	φ38
RC-05M	5m	FRJ-D-50-35-92	φ50

See **P026**

DUST CUBE

Laser marker use Clean room use - High pressure type Compact dust collector

ODU-1000DSA-AT3

For soldering and laser fume extraction



RoHS2

Usage environment



Type



Features



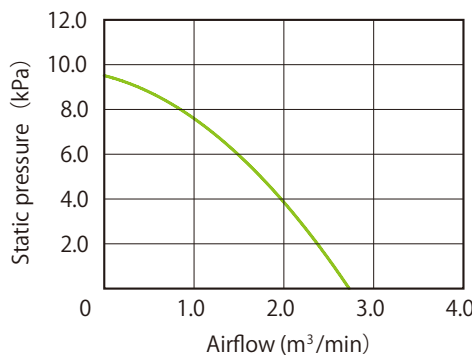
▶▶▶ P027~

Model/Specifications

Model	ODU-1000DSA-AT3
Max. air flow	3.2m ³ /min *
Max. static pressure	9.5kPa
Collection efficiency	99.97% or more (for particles of 0.3 μm or larger)
Rated voltage	Single phase, 100VAC 50/60Hz
Rated current	7.8A
Working temperature	0 to + 40°C
Working humidity	Not higher than 80%RH (free from condensation)
Noise	59dB(A)
Max. intake air temperature	+40°C
Regulatory compliance	RoHS2
Weight	32.5kg
Accessory	Power cable 3m, Instruction manual 1 copy

● Supply voltage should be as specified above with fluctuations within 10%. *2.7 m³/min when zeolite is attached

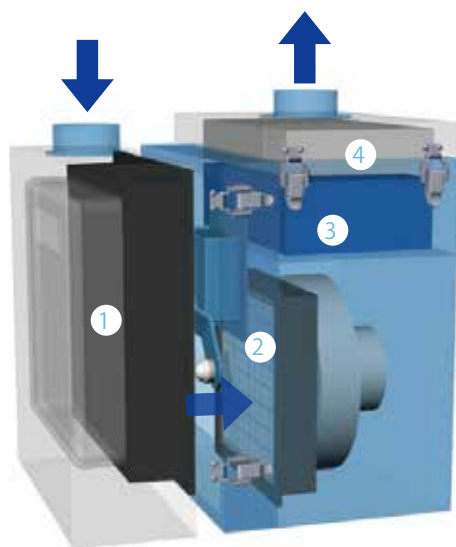
Performance curve



Caution

- Read the instruction manual carefully before use. DUST CUBE is designed for inhaling common dust or odor. Never use this product for inhaling the following substances.
 - Flammable substances including gasoline, thinner, benzene, kerosene and organic solvent.
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances
 - Dusts containing sparks generated by high-speed cutter, grinder or other machinery
 - Cigarette ash
 - Liquid like water, oil and chemicals
 - Inhaling them will lead to fire, breakage or electric leakage.
- Do not use this product in a place where flammable or corrosive gasses or any matters that can destroy insulation generate or permeate.
- This product is for indoor use only.
- The site of use should be free from vibration and impact.
- Make sure that the packaging is not damaged on delivery and contact your supplier, if any.

■ ODU-1000DSA-AT3 structure



1 Primary filter (Pre-coating & deodorizing)

The primary filter is pre-coated with zeolite particles to keep fume away from attaching on it directly.

2 Secondary filter (High performance filter)

Protects electric components from dust.

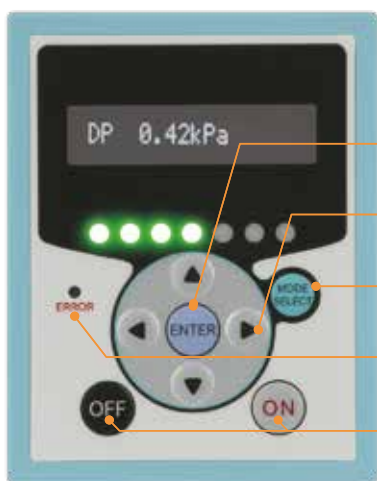
3 Activated carbon cassette

Absorbs odor. Replacement can be done as quick as 3 minutes.

4 Tertiary filter (HEPA filter)

To satisfy Clean Class 100,000 to 10,000

■ Operation panel



- Enter key
- Cursor key
- Mode Select key
- Error lamp
- ON/OFF

See P004

■ Remote control

By connecting an optional remote cable, remote operation is enabled.

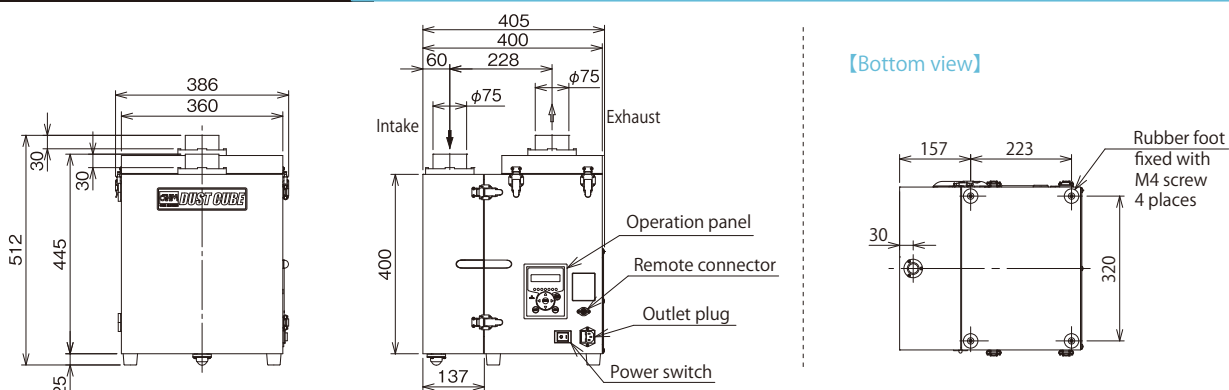


Remote cable entry on dust collector side

1. Operation input
2. Operation pressure output (1-5 DCV)
3. Air volume shortage output
4. Remote operation input
5. Operation output
6. Pressure shortage output
7. Performance level change input (0.6-5 DCV)
8. GND

- ON/OFF switching
- Change of capacity level
- Enables to output the signals of operation pressure, air volume shortage, operation and pressure shortage

■ Outline drawing



■ Maintenance parts

Replacement filter		Pri.	2nd	3rd	Purchase unit
Cassette filter	HDF-3535-120-ZEO	○			1 piece
High performance filter	CHF-2030-50		○		1 piece
HEPA filter	HEP-3220-69			○	1 piece
Active carbon cassette	ACC-3220-100				1 piece

See P025

■ Option

Remote cable	Length	Detachable flange	Duct dia.
RC-03M	3m	FRJ-D-38-35-108	φ38
RC-05M	5m	FRJ-D-50-35-108	φ50
		FRJ-D-65-35-108	φ65

See P026

See P026

DUST CUBE

Laser marker use General environment - High volume type Compact dust collector

OSK-060ACC-AT3

Suitable for laser markers of short time operation and low viscosity fumes



RoHS2

Usage environment



Type



Features



Technical data

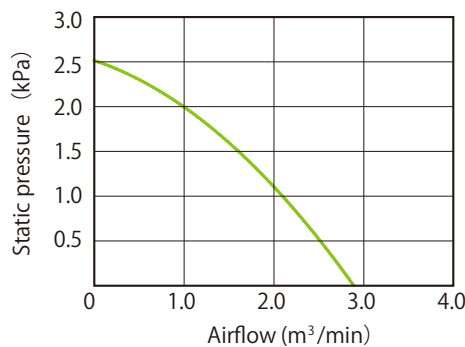
▶▶▶ P027~

Model/Specifications

Model	OSK-060ACC-AT3
Max. air flow	2.8m ³ /min
Max. static pressure	2.5kPa
Collection efficiency	99% or more (for particles of 0.3 μm or larger)
Rated voltage	Single phase, 100VAC 50/60Hz
Rated current	2.3A
Working temperature	0 to + 40°C
Working humidity	Not higher than 80%RH (free from condensation)
Noise	61dB(A)
Max. intake air temperature	+40°C
Regulatory compliance	RoHS2
Weight	15.8kg
Accessory	Power cable 3m, Instruction manual 1 copy

● Supply voltage should be as specified above with fluctuations within 10%.

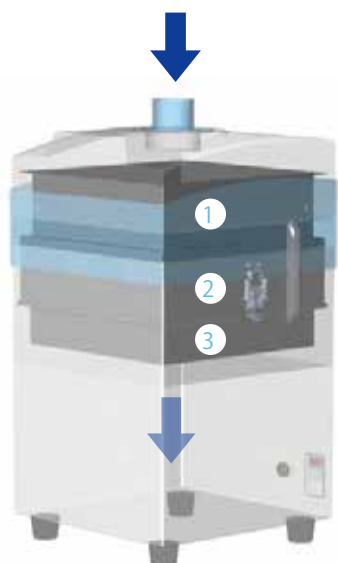
Performance curve



⚠ Caution

- Read the instruction manual carefully before use.
- DUST CUBE is designed for inhaling common dust or odor. Never use this product for inhaling the following substances.
 - Flammable substances including gasoline, thinner, benzene, kerosene and organic solvent.
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances
 - Dusts containing sparks generated by high-speed cutter, grinder or other machinery
 - Cigarette ash
 - Liquid like water, oil and chemicals
 - Inhaling them will lead to fire, breakage or electric leakage.
- Do not use this product in a place where flammable or corrosive gasses or any matters that can destroy insulation generate or permeate.
- This product is for indoor use only.
- The site of use should be free from vibration and impact.
- Make sure that the packaging is not damaged on delivery and contact your supplier, if any.

OSK-060ACC-AT3 structure



1 Primary filter (Pre-filter)

Pleated polypropylene filter is in a cassette. Disposable and easy to replace. Particles suctioned into the DUST CUBE are enlarged by collision cushioning to be captured in the Primary filter.

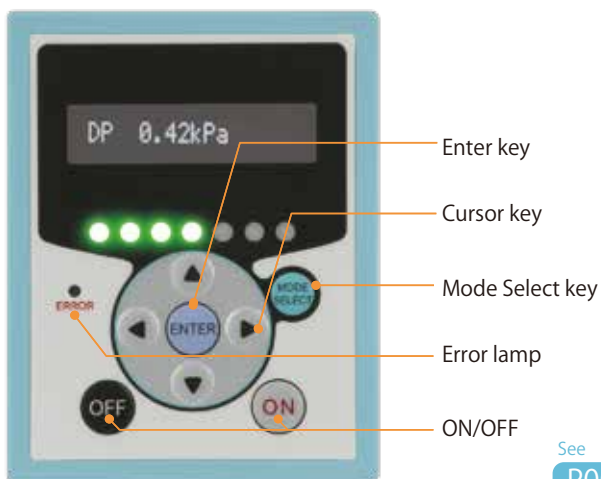
2 Secondary filter (Active carbon filter)

Captures fine particles that passed through the Primary filter as well as deodorizing them in the granular active carbon.

3 Tertiary filter (High performance filter)

Fine dust generated from the Active carbon filter and the particles uncollected in the Secondary filter are captured here to exhaust purified air. This filter also works for preventing the carbon dust from entering into the blower side.

Operation panel



Remote control

By connecting an optional remote cable, remote operation is enabled.



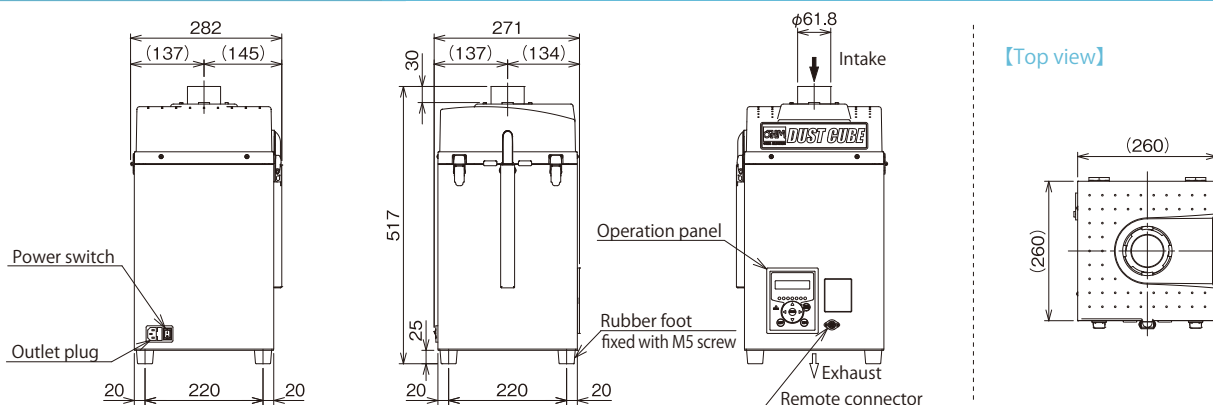
Remote cable entry on dust collector side

1. Operation input
2. Operation pressure output (1-5 DCV)
3. Filter clogging output
4. Remote operation input
5. Operation output
6. Abnormality output
7. Capacity level change input (0.6-5 DCV)
8. GND

- ON/OFF switching
- Change of capacity level
- Enables to output the signals of operation pressure, filter clogging, operation and abnormality

See P004

Outline drawing



Maintenance parts

Replacement filter		Pri.	2nd	3rd	Purchase unit
High performance filter	CHF-2222-40	○			1 piece
Active carbon cassette	ACC-2525-75ST		○		1 piece
High performance filter	CHF-2525-50			○	1 piece

See P026

Option

Remote cable	Length	Detachable flange	Duct dia.
RC-03M	3m	FRJ-D-38-35-92	φ38
RC-05M	5m	FRJ-D-50-35-92	φ50

See P026

See P026

DUST CUBE

General environment- High volume type Compact dust collector

OSK-250/450/750-B

High performance and high efficiency model for general environment



RoHS

RoHS2

Usage environment



Type



Features



Technical data

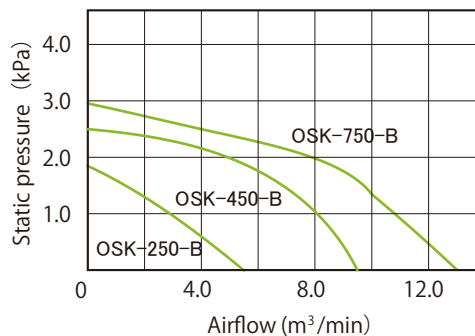
▶▶ P027~

Model/Specifications

Model	OSK-250-B	OSK-450-B	OSK-750-B
Max. air flow	5.5m ³ /min	9.5m ³ /min	13.0m ³ /min
Max. static pressure	1.85kPa	2.5kPa	3.4kPa
Collection efficiency	99% or more (for particles of 10 μm or larger)		
Rated voltage	Single phase, 100VAC 50/60Hz		Single phase, 200VAC 50/60Hz
Rated current	6.5A	10.0A	7.0A
Working temperature	0 to + 40°C		
Working humidity	Not higher than 80%RH (free from condensation)		
Noise	67dB(A)	67dB(A)	64dB(A)
Max. intake air temperature	+ 40°C		
Regulatory compliance	RoHS		RoHS2
Weight	22.3kg	37.0 kg	46.5kg
Accessory	Power cable 3m, Instruction manual 1 copy		

● Supply voltage should be as specified above with fluctuations within 10%.

Performance curve



⚠ Caution

● Read the instruction manual carefully before use.

DUST CUBE is designed for inhaling common dust or odor. Never use this product for inhaling the following substances.

- Flammable substances including gasoline, thinner, benzene, kerosene and organic solvent.
- Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances
- Dusts containing sparks generated by high-speed cutter, grinder or other machinery
- Cigarette ash
- Liquid like water, oil and chemicals
- Inhaling them will lead to fire, breakage or electric leakage.

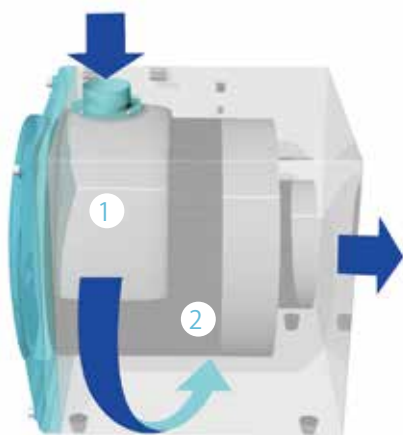
● Do not use this product in a place where flammable or corrosive gasses or any matters that can destroy insulation generate or permeate.

● This product is for indoor use only.

● The site of use should be free from vibration and impact.

● Make sure that the packaging is not damaged on delivery and contact your supplier, if any.

OSK-250/450/750-B structure



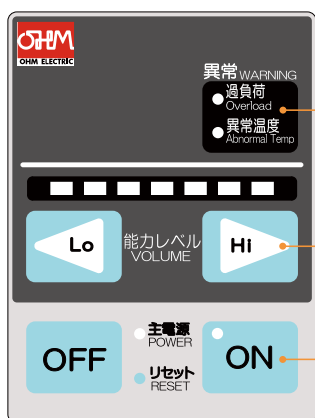
1 Primary filter

A filter pack consisting of five layer nonwoven polypropylene fabric. Each layer has different air permeability, and thus filter is not easily clogged or torn off having capability of capturing more than 95% of 45 μm or larger particles. The transparent front door allows to see the amount of dust collected.

2 Secondary filter

A polyester molded filter integrated into ABS frame. Designed for ease of maintenance having capability of capturing more than 99% of 10 μm or larger particles.

Operation panel



Abnormality notice

Capacity level

ON/OFF (Tact switch)

Remote control

By connecting an optional remote cable, remote operation is enabled.



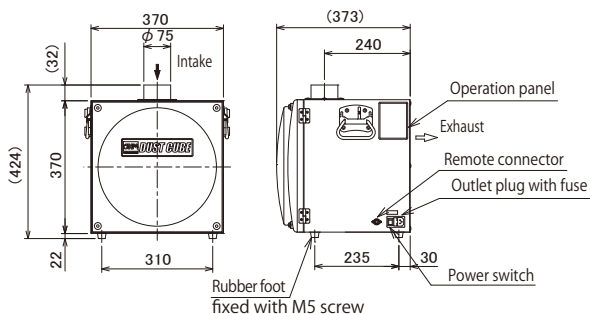
Remote cable entry on dust collector side

1. Operation input
2. -
3. -
4. Remote operation input
5. Operation output
6. Overload output
7. Service power
8. GND

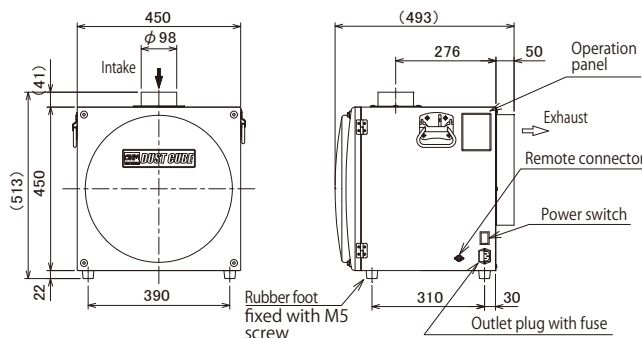
- ON/OFF switching
- Enables to output the signals of operation pressure, operation and overloading

Outline drawing

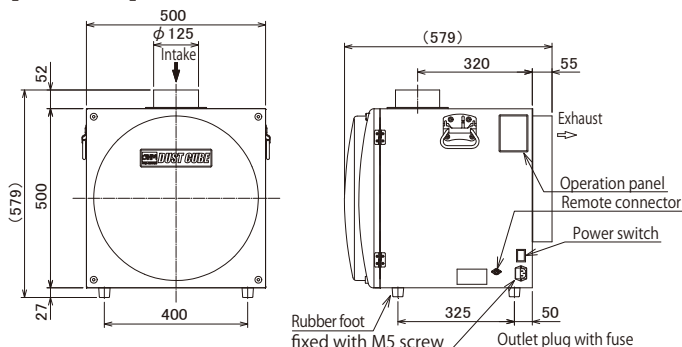
【OSK-250-B】



【OSK-450-B】



【OSK-750-B】



Maintenance parts

See P026

		Pri.	2nd	Purchase unit
【OSK-250-B】	Filter pack	FB-700-16	○	1 set (5 pcs)
	Cylindrical filter	CS-300-150	○	1 piece
【OSK-450-B】	Filter pack	FB-700-22	○	1 set (5 pcs)
	Cylindrical filter	CS-300-200	○	1 piece
【OSK-750-B】	Filter pack	FB-900-25	○	1 set (5 pcs)
	Cylindrical filter	CS-300-250	○	1 piece

Option

See P026

Remote cable	Length
RC-03M	3m
RC-05M	5m

Laser marker use General environment - High volume type Compact dust collector

OSK-250-DS-B

Meets the diverse needs in laser marking process



RoHS2

Usage environment



Type



Features



Technical data

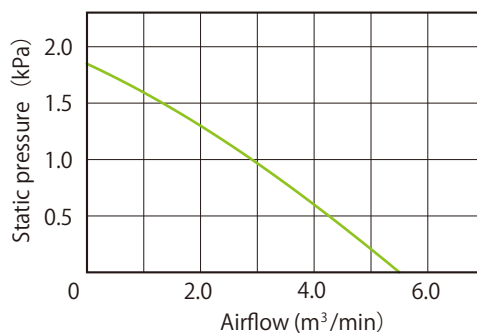
▶▶ P027~

Model/Specifications

Model	OSK-250-DS-B
Max. air flow	5.5m ³ /min
Max. static pressure	1.85kPa
Collection efficiency	99% or more (for particles of 10 μm or larger)
Rated voltage	Single phase, 100VAC 50/60Hz
Rated current	6.5A
Working temperature	0 to + 40°C
Working humidity	Not higher than 80%RH (free from condensation)
Noise	67dB
Max. intake air temperature	+40°C
Regulatory compliance	RoHS2
Weight	22.3kg
Accessory	Power cable 3m, Instruction manual 1 copy

● Supply voltage should be as specified above with fluctuations within 10%.

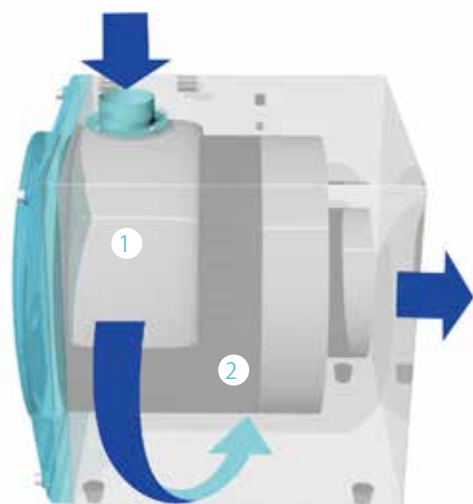
Performance curve



⚠ Caution

- Read the instruction manual carefully before use. DUST CUBE is designed for inhaling common dust or odor. Never use this product for inhaling the following substances.
 - Flammable substances including gasoline, thinner, benzene, kerosene and organic solvent.
 - Explosive substances such as aluminium, magnesium and titan as well as materials ridden with those substances
 - Dusts containing sparks generated by high-speed cutter, grinder or other machinery
 - Cigarette ash
 - Liquid like water, oil and chemicals
 - Inhaling them will lead to fire, breakage or electric leakage.
- Do not use this product in a place where flammable or corrosive gasses or any matters that can destroy insulation generate or permeate.
- This product is for indoor use only.
- The site of use should be free from vibration and impact.
- Make sure that the packaging is not damaged on delivery and contact your supplier, if any.

OSK-250-DS-B structure



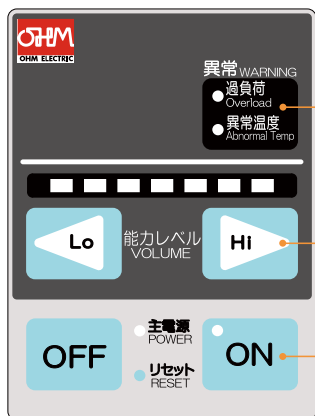
1 Primary filter

A filter pack consisting of five layer nonwoven polypropylene fabric. Each layer has different air permeability, and thus filter is not easily clogged or torn off having capability of capturing more than 95% of 45 μm or larger particles. The transparent front door allows to see the amount of dust collected.

2 Secondary filter

A polyester molded filter integrated into ABS frame. Designed for ease of maintenance having capability of capturing more than 99% of 10 μm or larger particles.

Operation panel



Abnormality notice

Capacity level

ON/OFF (Tact switch)

Remote control

By connecting an optional remote cable, remote operation is enabled.

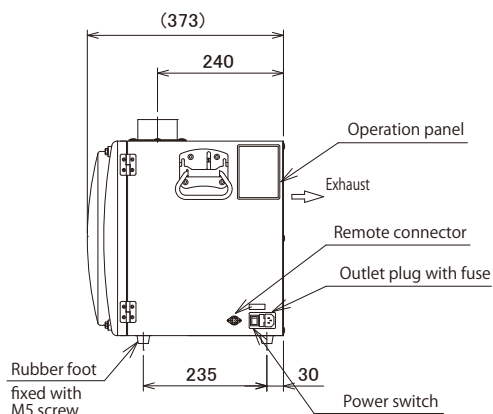
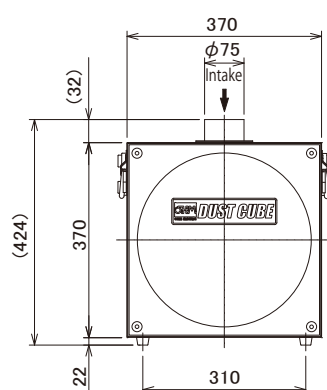


Remote cable entry on dust collector side

1. Operation input
2. -
3. -
4. Remote operation input
5. Operation output
6. Overload output
7. Service power
8. GND

- ON/OFF switching
- Enables to output the signals of operation pressure, operation and overloading

Outline drawing



Maintenance parts

Replacement filter		Pri.	2nd	Purchase unit
Filter pack	FB-700-16	○		1 set (5 pcs)
Cylindrical filter	CSW-300-150		○	1 piece

See P026

Option

Remote cable	Length
RC-03M	3m
RC-05M	5m

See P026

Maintenance parts/Option

Dust collector

High volume for clean room

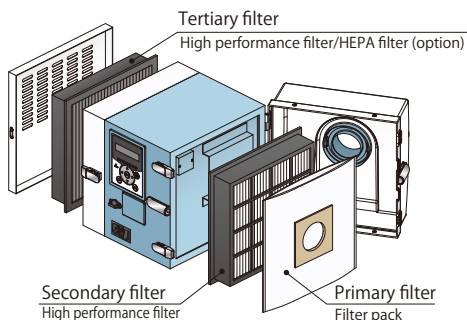
High pressure for clean room

High volume for gen. env.

Option

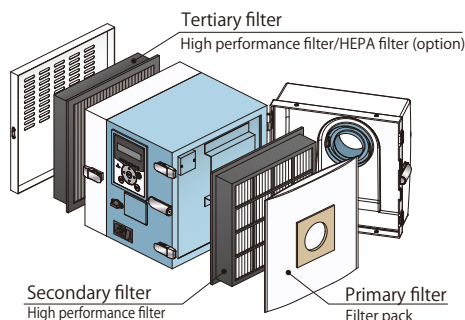
Technical data

ODU-080HC-AT3



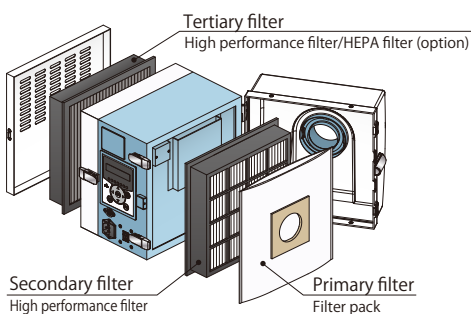
	Primary	Secondary/Tertiary	Tertiary (option)
Filter name	Filter pack	High performance filter	HEPA filter
Part number	FB-25	CHF-2525-50	HEP-2525-50
Collection rate	Min. 95% for 45µm	Min. 99% for 0.3µm	Min. 99.97% for 0.3µm
Dimensions	H250×W300	H250×W250, T50	H250×W250, T50
Filter frame material	—	ABS	Aluminum
Material	Polypropylene + cardboard	Polypropylene	Glass fiber
Purchase unit	1 set (5 pcs)	1 pc.	

ODU-450HC-AT3



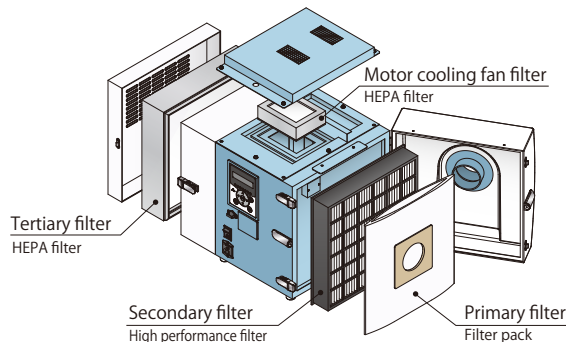
	Primary	Secondary/Tertiary	Tertiary (option)
Filter name	Filter pack	High performance filter	HEPA filter
Part number	FB-700-22	CHF-3535-70	HEP-3535-69
Collection rate	Min. 95% for 45µm	Min. 99% for 0.3µm	Min. 99.97% for 0.3µm
Dimensions	H700×W220	H350×W350, T70	H350×W350, T69
Filter frame material	—	ABS	Aluminum
Material	Polypropylene + cardboard	Polypropylene	Glass fiber
Purchase unit	1 set (5 pcs)	1 pc.	

ODU-080HP-AT3



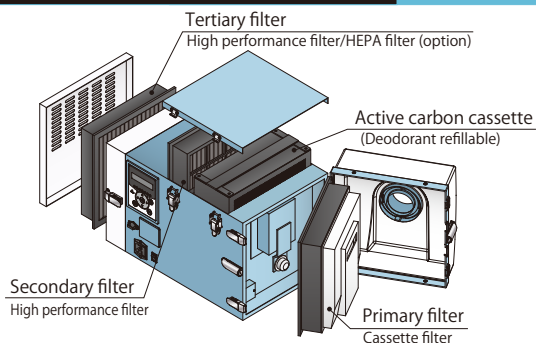
	Primary	Secondary/Tertiary	Tertiary (option)
Filter name	Filter pack	High performance filter	HEPA filter
Part number	FB-25	CHF-2525-50	HEP-2525-50
Collection rate	Min. 95% for 45µm	Min. 99% for 0.3µm	Min. 99.97% for 0.3µm
Dimensions	H250×W300	H250×W250, T50	H250×W250, T50
Filter frame material	—	ABS	Aluminum
Material	Polypropylene + cardboard	Polypropylene	Glass fiber
Purchase unit	1 set (5 pcs)	1 pc.	

ODU-1200HP-AT3



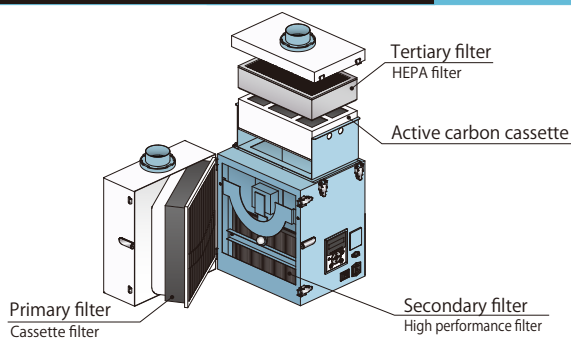
	Primary	Secondary/Tertiary	Tertiary	—
Filter name	Filter pack	High performance filter	HEPA filter	Motor cooling fan filter
Part number	FB-30	CHF-3030-50	HEP-3030-69	HEP-1293-34
Collection rate	Min. 95% for 45µm	Min. 99% for 0.3µm	Min. 99.97% for 0.3µm	Min. 99% for 0.3µm
Dimensions	H300×W300	H300×W300, T50	H300×W300, T69	H123×W93, T34
Filter frame material	—	Polypropylene	Aluminum	Aluminum
Material	Polypropylene + C.board	Polypropylene	Glass fiber	Glass fiber
Purchase unit	1 set (5 pcs)	1 pc.		

ODU-080DSA-AT3



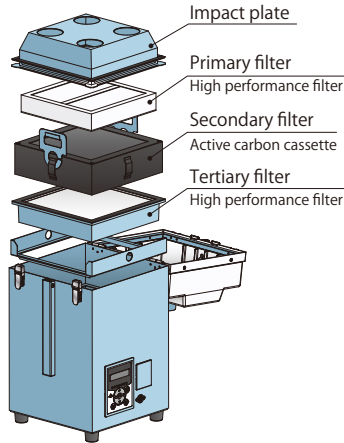
	Primary	Secondary/Tertiary	Tertiary (option)	—
Filter name	Cassette filter	High performance filter	HEPA filter	Deodorant
Part number	HDF-2525-90-ZEO	CHF-2525-50	HEP-2525-50	YAC-2600
Collection rate	Min. 99% for 1µm	Min. 99% for 0.3µm	Min. 99.97% for 0.3µm	—
Dimensions	H250×W250, T90	H250×W250, T50	H250×W250, T50	—
Filter frame material	ABS	ABS	Aluminum	—
Material	Polyester	Polypropylene	Glass fiber	Granular active carbon
Purchase unit	1 pc.		1 set (2.6kg×4 bags)	

ODU-1000DSA-AT3



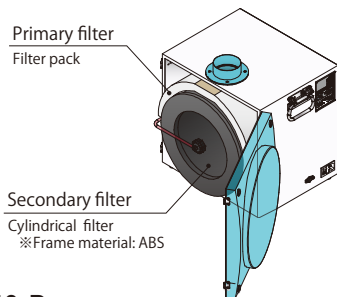
	Primary	Secondary	Tertiary	—
Filter name	Cassette filter	High performance filter	HEPA filter	Active carbon cassette
Part number	HDF-3535-120-F1-ZEO	CHF-2030-50	HEP-3220-69	ACC-3220-100
Collection rate	—	Min. 99% for 0.3µm	Min. 99.97% for 0.3µm	—
Dimensions	H350×W350, T120	H200×W300, T50	H200×W320, T69	H320×W200, T100
Filter frame material	ABS + Polycarbonate	Polypropylene	Aluminum	Cardboard
Material	Polyester + PTFE laminate	Polypropylene	Glass fiber	Fibrous/granular AC
Purchase unit	1 pc.			

OSK-060ACC-AT3



	Primary	Secondary	Tertiary
Filter name	High performance filter	Active carbon cassette	High performance filter
Part number	CHF-2222-40	ACC-2525-75ST	CHF-2525-50
Collection rate	Min. 80% for 45 μm	—	Min. 99% for 0.3 μm
Dimensions	H220×W220, T40	H250×W250, T75	H250×W250, T50
Filter frame material	Cardboard	SPCC	ABS
Material	Polypropylene	Granular active carbon	Polypropylene
Purchase unit	1 pc.		

OSK-250/450/750-B 250-DS-B



OSK-250-B

	Primary	Secondary
Filter name	Filter pack	Cylindrical filter
Part number	FB-700-16	CS-300-150
Collection rate	Min. 95% for 45μm	Min. 99% for 10μm
Dimensions	H700×W160	φ300 L150
Material	Polypropylene+ Cardboard	Polyester
Purchase unit	1 set (5 pcs)	1 pc.

OSK-450-B

	Primary	Secondary
Filter name	Filter pack	Cylindrical filter
Part number	FB-700-22	CS-300-200
Collection rate	Min. 95% for 45μm	Min. 99% for 10μm
Dimensions	H700×W220	φ300 L200
Material	Polypropylene+ Cardboard	Polyester
Purchase unit	1 set (5 pcs)	1 pc.

OSK-750-B

	Primary	Secondary
Filter name	Filter pack	Cylindrical filter
Part number	FB-900-25	CS-300-250
Collection rate	Min. 95% for 45μm	Min. 99% for 10μm
Dimensions	H900×W250	φ300 L250
Material	Polypropylene+ Cardboard	Polyester
Purchase unit	1 set (5 pcs)	1 pc.

OSK-250-DS-B

	Primary	Secondary
Filter name	Filter pack	Cylindrical filter
Part number	FB-700-16	CSW-300-150
Collection rate	Min. 95% for 45μm	Min. 99% for 10μm
Dimensions	H700×W160	φ300 L150
Material	Polypropylene+ Cardboard	Polyester+Active carbon fiber
Purchase unit	1 set (5 pcs)	1 pc.

Others

Remote cable

	Part number	Length	Applicable to
	RC-03M	3m	All models
	RC-05M	5m	

Detachable flange

	Part number	Duct dia.	Applicable to
	FRJ-D-38-35-92	φ38	ODU-080HC-AT3 ODU-080HP-AT3 ODU-080DSA-AT3 OSK-060ACC-AT3
	FRJ-D-50-35-92	φ50	
	FRJ-D-65-35-92	φ65	
	FRJ-D-38-35-108	φ38	ODU-1200HP-AT3 ODU-1000DSA-AT3
	FRJ-D-50-35-108	φ50	
	FRJ-D-65-35-108	φ65	
	FRJ-D-75-35-108	φ75	ODU-450HC-AT3
	FRJ-D-50-37-139	φ50	
	FRJ-D-75-37-139	φ75	

Fastening band

	Part number	Specification
	ABA-25	SUS fastening band for φ25, 1pc.
	SY-38	SUS fastening band for φ38, 1pc.
	SY-50	SUS fastening band for φ50, 1pc.
	SY-65	SUS fastening band for φ65, 1pc.
	SY-75	SUS fastening band for φ75, 1pc.
	SY-100	SUS fastening band for φ100, 1pc.
	SY-125	SUS fastening band for φ125, 1pc.
	SY-75SS	Steel fastening band for φ75, 1pc.
	SY-100SS	Steel fastening band for φ100, 1pc.
	SY-125SS	Steel fastening band for φ125, 1pc.

Duct hose ※Manufactured by TOTAKU INDUSTRIES

	Part number	Specification	
	TACSD-25-1	Anti-static φ25 1m (TAC Duct AS φ25)	
	TACSD-25-2		φ25 2m (TAC Duct AS φ25)
	TACAS-38-1		φ38 1m (TAC Duct AS φ38)
	TACAS-38-2		φ38 2m (TAC Duct AS φ38)
	TACAS-50-1		φ50 1m (TAC Duct AS φ50)
	TACAS-50-2		φ50 2m (TAC Duct AS φ50)
	TACAS-65-1		φ65 1m (TAC Duct AS φ65)
	TACAS-65-2		φ65 2m (TAC Duct AS φ65)
	TACAS-75-1		φ75 1m (TAC Duct AS φ75)
	TACAS-75-2		φ75 2m (TAC Duct AS φ75)
	TACAS-100-1	φ100 1m (TAC Duct AS φ100)	
	TACAS-100-2	φ100 2m (TAC Duct AS φ100)	
	TACAS-125-1	φ125 1m (TAC Duct AS φ125)	
	TACAS-125-2	φ125 2m (TAC Duct AS φ125)	
	TAC65-1	Rigid φ65 (±30%) 1m (TAC Rigid duct φ65)	
	TAC65-2		φ65 (±30%) 2m (TAC Rigid duct φ65)
	TAC75-1		φ75 (±30%) 1m (TAC Rigid duct φ75)
	TAC75-2		φ75 (±30%) 2m (TAC Rigid duct φ75)
	TAC100-1		φ100(±30%) 1m (TAC rigid duct φ100)
	TAC100-2		φ100(±30%) 2m (TAC rigid duct φ100)
TAC125-1	φ125(±30%) 1m (TAC rigid duct φ125)		
TAC125-2	φ125(±30%) 2m (TAC rigid duct φ125)		

Technical data

Model selection

Dust collector

High volume for clean room

High pressure for clean room

High volume for gen. env.

Option

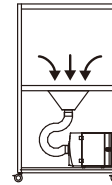
Technical data

What is DUST CUBE?

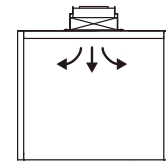
DUSTCUBE is a dust collector most suitable for spot collection that collect dust from the source via a hood and a hose. By approaching the source very closely with such hood or hose, DUSTCUBE sucks in fumes, flying dust and air-blown dust before they scatter in the air. This makes suctioning power minimum as well as optimizing efficiency and effectiveness.

For prevention of dust dispersion, it is recommended to fit a hood to the covered area.

For dust elimination by positive pressure ventilation, refer to the information on our Clean Booth System.



Clean bench



Clean booth system

How to select a model

First, choose a suctioning method depending on the type of dust. Dust collectors are generally divided into two types, i.e., high volume type and high pressure type.

■ Suctions fine airborne dust with a large volume of air like a vent fan

High volume type

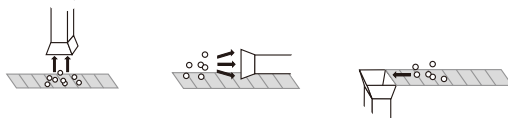
■ Suctions fine settled dust with high pressure like a vacuum cleaner

High pressure type

1) Select a suction method

High volume type

With this type, it is important to use an appropriate hood for the dust and usage environment. Select a hood that suits the application best referring to the "Hood designs" in page 30.

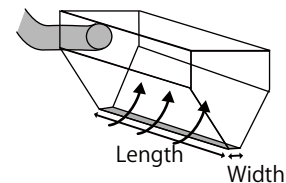


• Upward suctioning • Sideward suctioning • Downward suctioning

- In case airblow direction is toward the hood, depth of the hood should be 300mm or more for preventing rebound of air.
- In case the source of dust is rotating, locate the hood in the direction to which the dust scatters.
- Bigger air volume is required for larger hood opening area.

High pressure type

With this type, a slotted nozzle is commonly used to maximize the effect of pressure.



Width : 2-3mm

Length : As appropriate according to the surface configuration and size.

※ A pipe can be used as a nozzle by opening slots or round holes.

- Set the nozzle close to settled dust within a distance of 3mm for efficient dust collection.
- To use a suction nozzle, at least 4 to 10kPa static pressure is required for a dust collector.

2) Select a suction hose

High volume type

If the hose is too narrow, volume of inhaled air will be reduced. Use a hose which nominal diameter is 50mm or more.

High pressure type

As hose becomes narrower, suction speed will increase and better collection efficiency is obtained. Use a hose which nominal diameter is 38mm or less.

3) Calculate the required air volume

$$Q = 60 \times V_c \times \left\{ 10 \left(\frac{X}{10} \right)^2 + A_H \right\}$$

Q Required air volume (m³/min) = 60 × V_c Controlled air speed (m/s) × { 10 (X Distance to dust (m))² + A_H Hood opening area (m²) }

Choose one from the following values depending on the objective dust or dust collection method.
 [Fume : 0.2 Airborne dust : 0.27 High pressure suctioning : 0.3 Light dust : 0.5 Heavy dust : 0.75] (Reference value)

4) Calculate the pressure loss using the following formula

$$V_{1D} = \frac{Q}{60 \times A_D}$$

$$V_{1H} = \frac{Q}{60 \times A_H}$$

V_{1D} Wind velocity at duct entry (m/s) = Q Required air volume (m³/min) ÷ (60 × A_D Duct opening area (m²))

V_{1H} Wind velocity at hood entry (m/s) = Q Required air volume (m³/min) ÷ (60 × A_H Hood opening area (m²))

$$P_{L1D} = \frac{1}{2} \times \lambda \times \left(\frac{L}{D} \right) \times \rho \times (V_{1D})^2 \times \xi_D$$

$$P_{L1H} = \frac{1}{2} \times \rho \times (V_{1H})^2 \times \xi_H$$

P_{L1D} Pressure loss in duct (Pa) = $\frac{1}{2}$ × λ Friction drag coefficient = 0.02 × (L Duct length (m) ÷ D Duct diameter (m)) × ρ Air density (kg/m³) = 1.2 × (V_{1D} Wind velocity at duct entry (m/s))² × ξ_D Duct coefficient = 3

P_{L1H} Pressure loss in hood (Pa) = $\frac{1}{2}$ × ρ Air density (kg/m³) = 1.2 × (V_{1H} Wind velocity at hood entry (m/s))² × ξ_H Pressure loss coefficient of hood

Choose either of the following values depending on the hood configuration.
 [Circular hood : 0.09 Square hood : 0.17] (Reference value)

$$P = \left(P_{L1D} + P_{L1H} \right) \div 1000$$

P Pressure loss (kPa) = (P_{L1D} Pressure loss in duct (Pa) + P_{L1H} Pressure loss in hood (Pa)) ÷ 1000

Technical data

Model selection

Dust collector

High volume for clean room

High pressure for clean room

High volume for gen. env.

Option

Technical data

5) Select a model from the required air volume and the static pressure obtained.

- Make a choice between general environment use or clean room use.

High volume type

The suction distance between the source and the suction port should be within 100mm.

High pressure type

To suction settled dust, the particle size should be larger than $40\mu\text{m}$ or the work should be electrically conductive. If the work is non-conductive, neutralization or air blow is required.

Selection example

Conditions : Collects flying dust from above using a round shape hood with 150mm dia.

Use a duct hose of 65mm dia. and 5 meter long. The hood is placed at 100 mm distance from the source of dust generation. The site of use is a clean room of Class 10,000.

- Required air volume

$$Q = 60 \times 0.27 \times \{ 10 \times (0.1)^2 + 0.0177 \} \cong 1.907$$

Air volume requirement :
1.91(m³/min)

- Static pressure

$$\left[\begin{array}{l} V_{1D} = 1.907 \div (60 \times 0.0033) \cong 9.631 \\ V_{1H} = 1.907 \div (60 \times 0.0177) \cong 1.796 \end{array} \right.$$

$$\left[\begin{array}{l} P_{L1D} = \frac{1}{2} \times 0.02 \times (5 \div 0.065) \times 1.2 \times (9.631)^2 \times 3 \cong 256.865 \\ P_{L1H} = \frac{1}{2} \times 1.2 \times (1.796)^2 \times 0.09 = 0.174 \end{array} \right.$$

$$P = (256.865 + 0.174) \div 1000 \cong 0.257$$

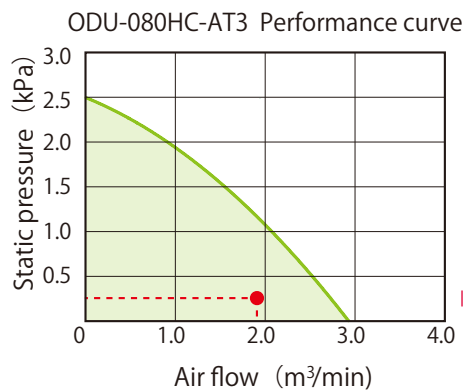
Static pressure : 0.257(kPa)

ODU-080HC-AT3

Max. air flow : 2.9(m³/min)

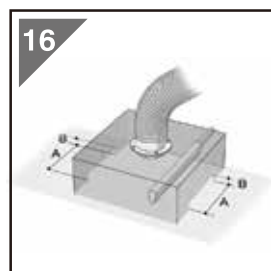
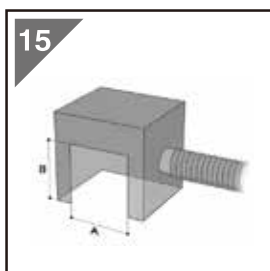
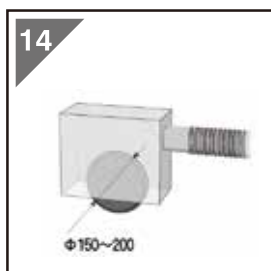
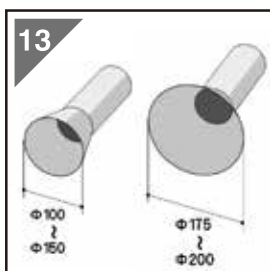
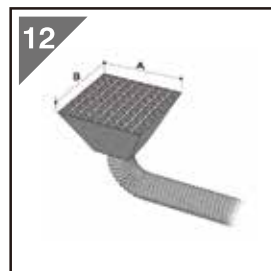
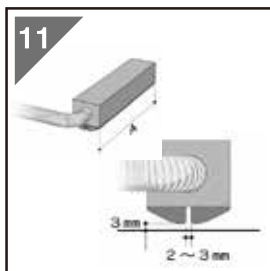
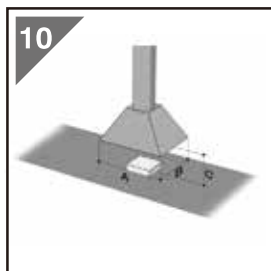
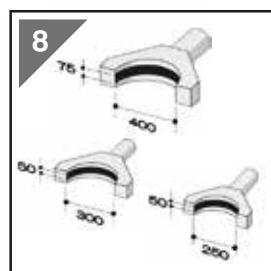
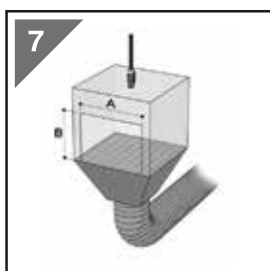
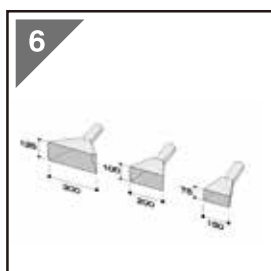
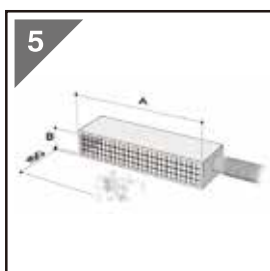
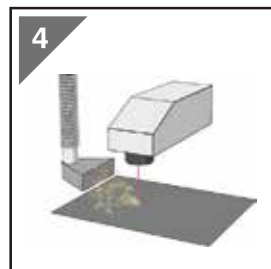
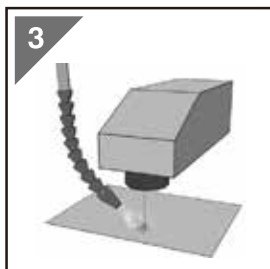
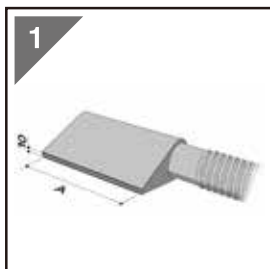
Max. static pressure : 2.5kPa

Conforming to clean room use



Recommended model is
ODU-080HC-AT3

Hood designs



Please contact us for details.



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