

Heat-Resistant Air Filter



Features

1.Heat resistance

We have various models up to 500°C resistant one.

These filters have special construction and materials to be used in high temperature.

2.Various dimensions

We can design the filter with various dimension requested.

1.Material2

2.Model3

Type	Temperature: °C		Model number						Usage
	Normal	Max.	HEPA	Page	Semi HEPA	Page	Medium	Page	
500 °C	500	500	—	—	GCW	P3	—	—	Clean Oven Drying Process Incinerator Exhaust Processing
350 °C	350	400 (1h)	ATMV	P4	GCV	P5	—	—	
250 °C	250	250	ATMH	P6	—	—	ASTCH	P8	
			ATMCH	P7					
150 °C	150	180 (1h)	ATME	P9	—	—	ASTE	P11	
			ATMCE	P10			ASTCE	P11	

* Others prefilter CKR P12

3.Handling Manual13

Temperature	Frame	Media	Separator	Sealant	Gasket
500°C	Stainless steel (surface-treated)	Glass fiber (wire gauzed)	Stainless steel	Glass fiber	Fine glass fiber
	<ul style="list-style-type: none"> •A special glass fiber media gauzed with Stainless steel wire to resist heat is used. The filter is made of Stainless steel and glass fiber media. (Gasket contains resin) •A special treatment against high temperature is applied on frame surface. •Silicone Less 				
350°C	Stainless steel	Glass fiber (wire gauzed)	Stainless steel	Glass fiber	Fine glass fiber
	<ul style="list-style-type: none"> •A special glass fiber media gauzed with Stainless steel wire to resist heat is used. The filter is made of US and glass fiber media. (Gasket contains resin) •Silicone Less 				
250°C	Stainless steel	Glass fiber	Aluminum alloy	Glass fiber + silicon	PTFE (Fine glass fiber)
	<ul style="list-style-type: none"> •Filter made of glass fiber paper and special separator produced under high temperature to maintain material strength. 				
150°C	Stainless steel	Glass fiber	Aluminum	Silicon	Silicon
	<ul style="list-style-type: none"> •Filter with sealant and gasket made of high heat-resistance silicon resin is to use against high temperature. 				

Others (prefilter)

No.	Material no.	Frame	Holder		Note.
			Inlet	Outlet	
1	B10	Cardboard	Punched metal	Punched metal	Normal temp. disposable
2	C13	Steel plate	Punched metal	Mesh	High temp. Heat-Chemical resistant Media changeable
3	S99	Stainless steel	Punched metal	Mesh	

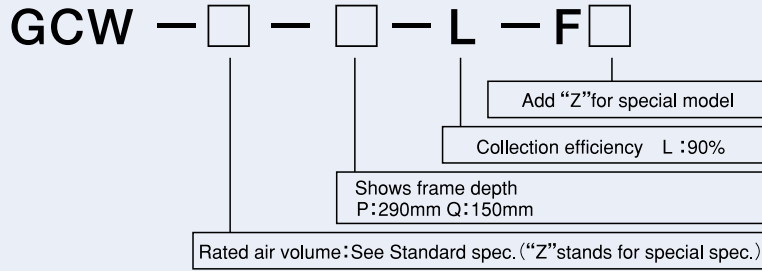
Other materials are also available.

- Remarks:
1. Glass fiber paper contains acrylic binder, so silicon and PTFE can also be used to resist heat. Confirm ahead.
 2. Low heat-resistance material such as Acrylic binder is used if needed. Smoke is generated when the material is carbonized. Contact us on blank ignition to control the smoke.

Atomos 500°C heat-resistant Semi-HEPA filter GCW



Model number



Standard specification

Model	Dimension (mm) H•W•D	Rated air volume (m³/min)	Pressure drop (Pa)		Collection efficiency (%) at 0.5 - 1µm	Weight (kg)
			Initial	Final		
GCW-31-P-L-F	610×610×290	31	245	400	90	21
GCW-17-Q-L-F	610×610×150	17				13

Materials and Temperature

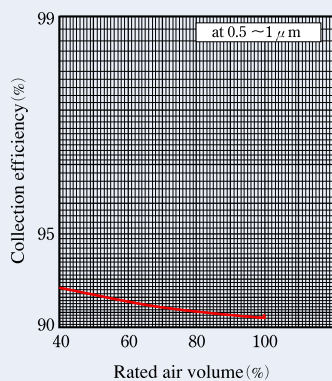
Materials					Temperature (°C)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel (Surface processed)	Glass wool (Held with Wire gauze)	Stainless steel	Glass fiber	Fine glass fiber gasket	500	500

Dimension available

D (mm)	H (mm)	W (mm)
290	305~760	305~760
150	305~760	305~915

Specification

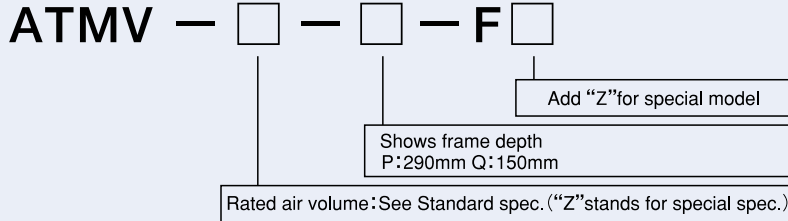
Air Volume vs. Collection Efficiency



Atomos 350°C heat-resistant HEPA filter ATMV



Model number



Standard specification

Model	Dimension (mm) H·W·D	Rated air volume (m³/min)	Pressure drop (Pa)		Collection efficiency (%) at 0.3µm	Weight (kg)
			Initial	Final		
ATMV- 6-P-F	500 × 500 × 290	6	245	490	99.97	17
ATMV- 10-P-F	610 × 610 × 290	10				21
ATMV- 4-Q-F	500 × 500 × 150	4				11
ATMV- 7-Q-F	610 × 610 × 150	7				13

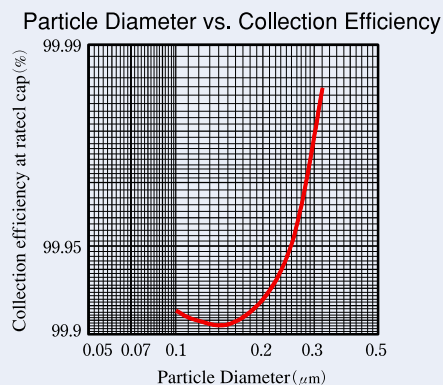
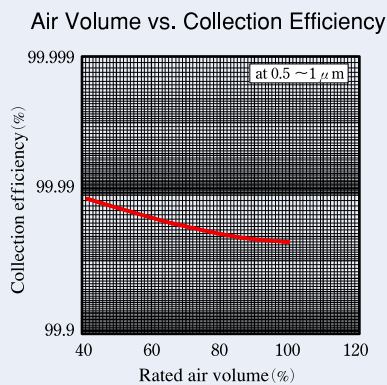
Materials and Temperature

Materials					Temperature (°C)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass wool (Held with Wire gauze)	Stainless steel	Glass fiber	Fine glass fiber gasket	350	400 (1h)

Dimension available

D (mm)	H (mm)	W (mm)
290	305~760	305~760
150	305~760	305~915

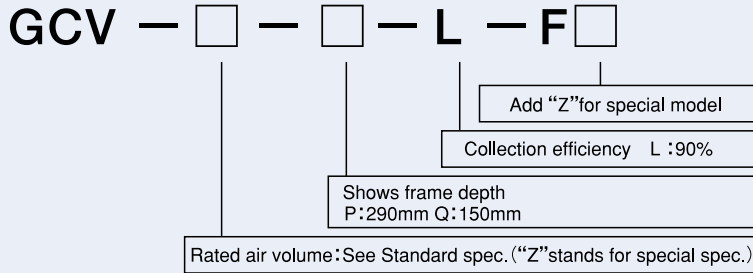
Specification



Atomos 350°C heat-resistant Semi-HEPA filter GCV



Model number



Standard specification

Model	Dimension (mm) H•W•D	Rated air volume (m³/min)	Pressure drop (Pa)		Collection efficiency (%) at 0.5 - 1µm	Weight (kg)
			Initial	Final		
GCV-31-P-L-F	610×610×290	31	245	490	90	21
GCV-17-Q-L-F	610×610×150	17				13

Materials and Temperature

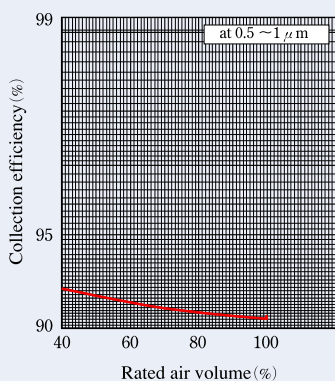
Materials					Temperature (°C)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass wool (Held with Wire gauze)	Stainless steel	Glass fiber	Fine glass fiber gasket	350	400 (1h)

Dimension available

D (mm)	H (mm)	W (mm)
290	305~760	305~760
150	305~760	305~915

Specification

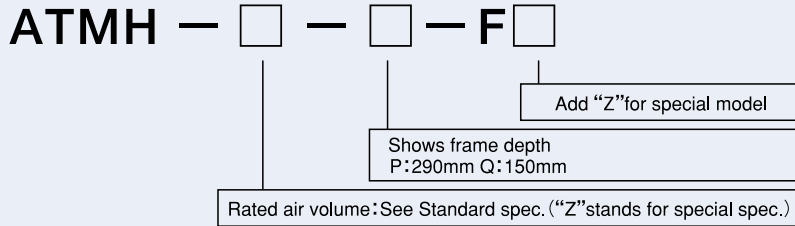
Air Volume vs. Collection Efficiency



Atomos 250°C heat-resistance HEPA filter ATMH



Model number



Standard specification

Model	Dimension (mm) H·W·D	Rated air volume (m³/min)	Pressure drop (Pa)		Collection efficiency (%)	Weight (kg)
			Initial	Final		
ATMH-7-P-F	300×300×290	7	245	490	99.97 at 0.3µm	6
ATMH-31-P-F	610×610×290	31				21
ATMH-39-P-F	610×760×290	39				27
ATMH-3-Q-F	300×300×150	3	245	490	99.97 at 0.3µm	4
ATMH-17-Q-F	610×610×150	17				12
ATMH-21-Q-F	610×760×150	21				15

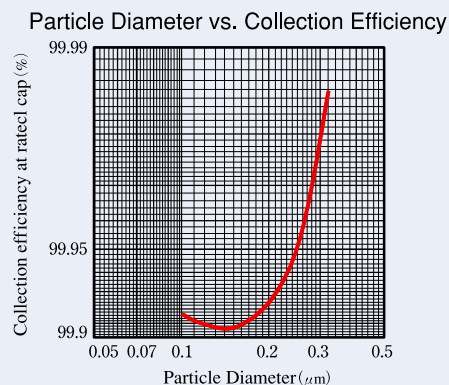
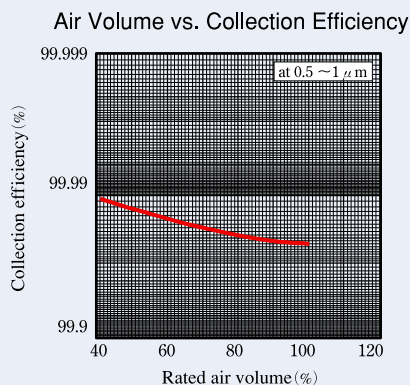
Materials and Temperature

Materials					Temperature (°C)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass fiber	Aluminum alloy	Glass fiber + Silicon	PTFE	250	250

Dimension available

D (mm)	H (mm)	W (mm)
290	305~760	150~1,000
150	305~760	150~1,220

Specification



Atomos 250°C heat-resistant high Capacity ATMCH Volume HEPA filter



Model number

ATMCH — □ — □ — F □

Add "Z" for special model

Shows frame depth
P:290mm Q:150mm

Rated air volume: See Standard spec. ("Z" stands for special spec.)

Standard specification

Model	Dimension (mm) H·W·D	Rated air volume (m³/min)	Pressure drop (Pa)		Collection efficiency (%)	Weight (kg)
			Initial	Final		
ATMCH-41-P-F	610×610×290	41	249±20	498	99.97 at 0.3µm	23
ATMCH-28-Q-F	610×610×150	28				13

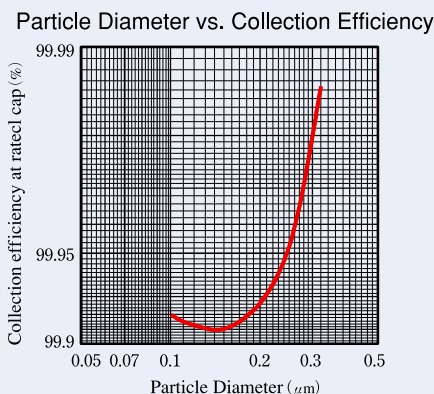
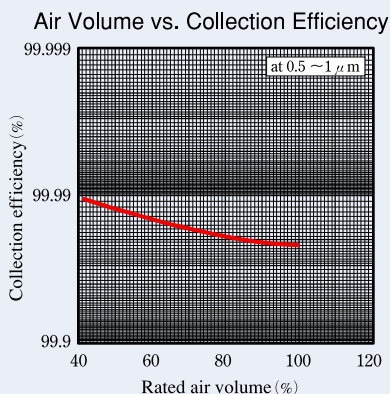
Materials and Temperature

Materials					Temperature (°C)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass fiber	Aluminum alloy	Glass fiber + Silicon	PTFE	250	250

Dimension available

D (mm)	H (mm)	W (mm)
290	305~610	305~760
150	305~610	305~760

Specification



Atomos 250°C heat-resistant medium filter ASTCH



Model number

ASTCH — □ — □ F □

Add "Z" for special model

Collection efficiency
90:NBS90% 60:NBS60%

Shows dimension. See Standard spec. "Z" stands for special spec.

Standard specification

Model	Dimension (mm) H·W·D	Rated air volume (m ³ /min)	Pressure drop (Pa)		Collection efficiency (%)	Weight (kg)
			Initial	Final		
ASTCH-36 —※F	500×500×290	34.5	※=90:167 ※=60:137	※=90:343 ※=60:294	※90=90 ※60=60	15
ASTCH-56H —※F	610×305×290	24.0				12
ASTCH-56 —※F	610×610×290	53.5	※=90:118 ※=60:78	※=90:245 ※=60:196	NBS	21
ASTCH-18 —※F	500×500×150	16.5				5
ASTCH-28 —※F	610×610×150	26.0				12

Materials and Temperature

Materials					Temperature (°C)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass fiber	Aluminum alloy	Glass fiber + Silicon	PTFE	250	250

Dimension available

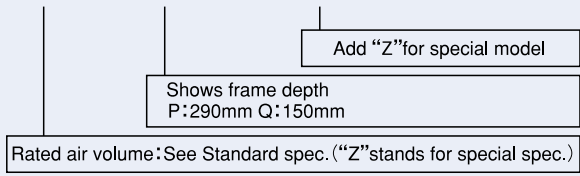
D (mm)	H (mm)	W (mm)
290	150~610	305~1,000
150	150~610	305~1,000

Atomos 150°C heat-resistant HEPA filter ATME



Model number

ATME — □ — □ — E □



Standard specification

Model	Dimension (mm) H·W·D	Rated air volume (m³/min)	Pressure drop (Pa)		Collection efficiency (%) at 0.3 μm	Weight (kg)
			Initial	Final		
ATME-31-P-E	610×610×290	29.5	245	490	99.97	19
ATME-39-P-E	610×760×290	37.5				24
ATME-17-Q-E	610×610×150	16.5				10
ATME-21-Q-E	610×760×150	20.5				13

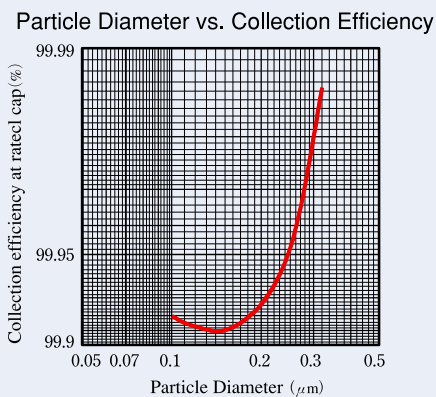
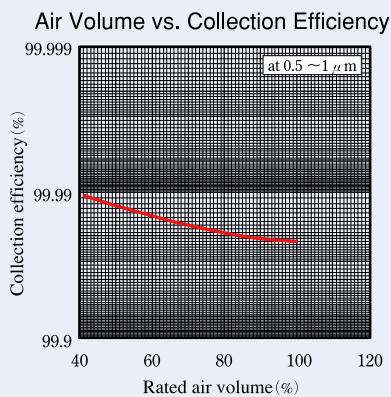
Materials and Temperature

Frame	Media	Materials			Temperature (°C)	
		Separator	Sealant	Gasket	Normal	Maximum
Stainless steel 304	Glass fiber	Aluminum	Silicon	Silicon	150	180 (1h)

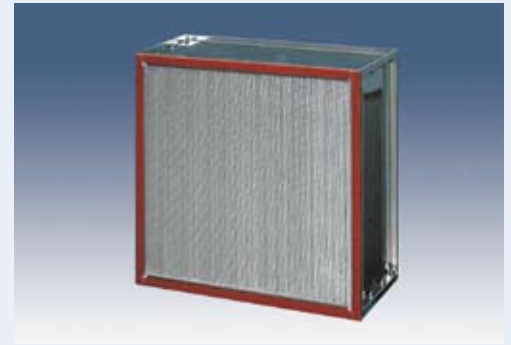
Dimension available

D (mm)	H (mm)	W (mm)
290	150~760	150~1,500
150	150~760	150~1,500

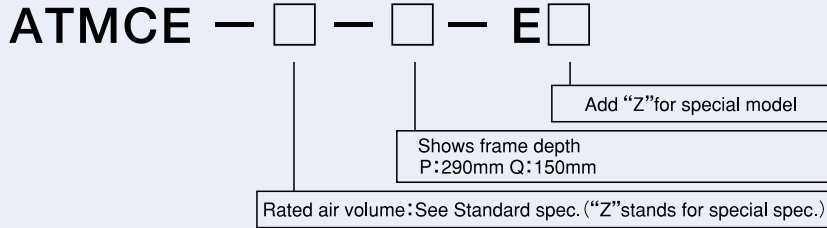
Specification



Atomos 150°C heat-resistant high capacity HEPA filter ATMCE



Model number



Standard specification

Air Volume Type	Model	Dimension (mm) H·W·D	Rated air volume (m³/min)	Pressure drop (Pa)		Collection efficiency (%)	Weight (kg)
				Initial	Final		
High capacity 1	ATMCE-41-P-E	610×610×290	39.5	249	498	99.97 at 0.3µm	21
	ATMCE-51-P-E	610×760×290	50.0				26
	ATMCE-28-Q-E	610×610×150	27.0				12
	ATMCE-34-Q-E	610×760×150	34.0				14
High capacity 2	ATMCE-50-P-ET	610×610×290	48.0	249±20	498	99.97 at 0.3µm	19
	ATMCE-62-P-ET	610×760×290	61.0				24

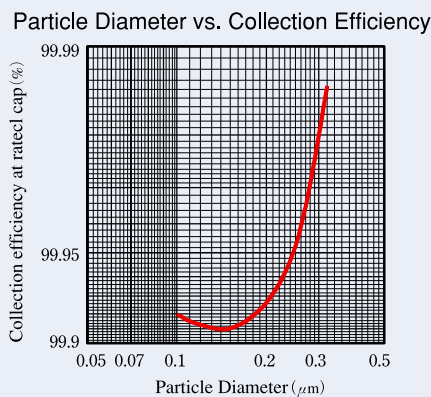
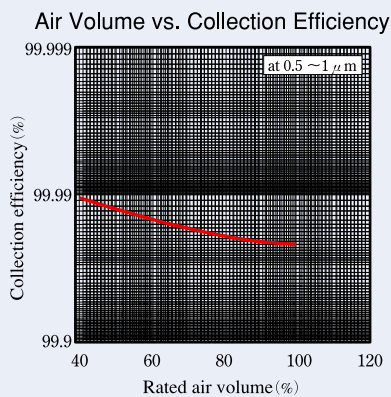
Materials and Temperature

Materials					Temperature (°C)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel 304	Glass fiber	Aluminum	Silicon	Silicon	150	180 (1h)

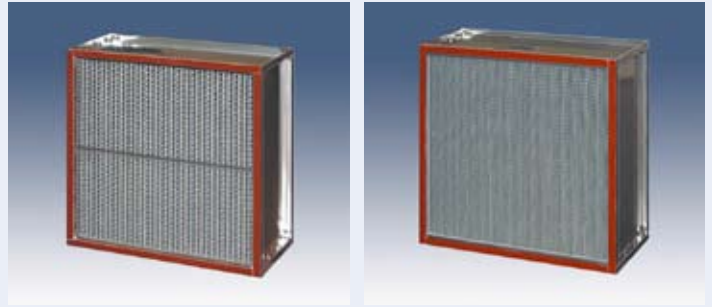
Dimension available

D (mm)	H (mm)	W (mm)
290	150~760	150~1,500
150	150~760	150~1,500

Specification

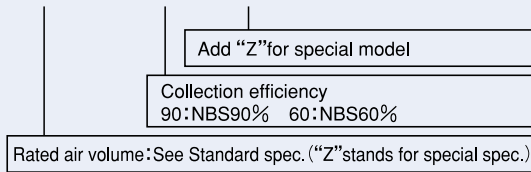


Atomos 150°C heat-resistant medium filter



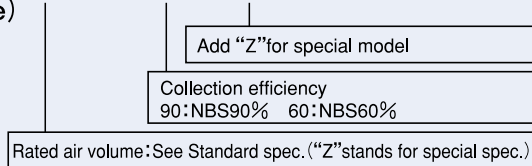
Model number

ASTE — □ — □ E □



ASTCE — □ — □ E □

(High capacity type)



Standard specification

Model	Dimension (mm) H·W·D	Rated air volume (m ³ /min)	Pressure drop (Pa)		Collection efficiency (%)	Weight (kg)
			Initial	Final		
ASTE-36 —※E	500×500×290	34.5	※=90:123	※=90:255	※90=90 ※60=60	11
ASTE-56H —※E	610×305×290	24.0	※=60: 78	※=60:157		10
ASTE-56 —※E	610×610×290	53.5			NBS	16
ASTE-18 —※E	500×500×150	16.5	※=90: 78	※=90 :157		6
ASTE-28 —※E	610×610×150	26.0	※=60: 39	※=60 : 48		8

Model	Dimension (mm) H·W·D	Rated air volume (m ³ /min)	Pressure drop (Pa)		Collection efficiency (%)	Weight (kg)
			Initial	Final		
ASTCE-36 —※E	500×500×290	34.5	※=95:167	※=95:343	※95=90~95 ※60=60~65	13
ASTCE-56H —※E	610×305×290	24.0	※=60:137	※=60:294		11
ASTCE-56 —※E	610×610×290	53.5			NBS	19
ASTCE-18 —※E	500×500×150	16.5	※=95:118	※=95:196		8
ASTCE-28 —※E	610×610×150	26.0	※=60: 78	※=60:118		10

Materials and Temperature

Frame	Media	Materials			Temperature (°C)	
		Separator	Sealant	Gasket	Normal	Maximum
Stainless steel 304	Glass fiber	Aluminum	Silicon	Silicon	150	180 (1h)

Dimension available

D (mm)	H (mm)	W (mm)
290	150~610	150~1,220
150	150~610	150~1,220

CKR Filter (Heat resistant prefilter)



Model number

CKR

Material No.

Media No.

Media spec. (sample)

No.	Media No.	Dimension (mm)	Rated air volume (m ³ /min)		Initial pressure drop (Pa)		Collection efficiency (Colorimetric)	
			1.5m/sec	2.5m/sec	1.5m/sec	2.5m/sec	1.5m/sec	2.5m/sec
1	CKR080	500×500×50	18	30	157	343	54	55
2	CKR040	500×500×50	18	30	314	627	63	72

Dimension

No.	Item	H (m)		W (mm)		Thickness (mm) *1
		Standard	Max	Standard	Max	Standard
1	CKR080	500	1000	500	1000	50
2	CKR040	500	1000	500	1000	50

* 1 25mm thickness is also available.

Material

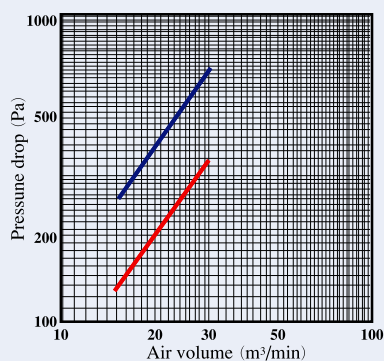
No.	Material no.	Frame	Holder		Note.
			Inlet	Outlet	
1	B10	Cardboard	Punched metal	Punched metal	Normal temp. disposable
2	C13	Steel plate	Punched metal	Mesh	High temp. Heat-Chemical resistant
3	S99	Stainless steel	Punched metal	Mesh	Media changeable

Other materials are also available.

Specification

Air Volume vs. Pressure drop (Sample)

— : CKR080
— : CKR040



1. Introductions for blank ignitions.

High temperature resistant HEPA filter is designed to use against high temperature.

This type of filter is made of material to resist heat; however, some materials to be carbonized (*) are unavoidably used. So, please do blank ignition before use the filter.

Note: Materials to be carbonized

- (a) Acrylic binder and water repellent with fluorine (mass ratio of 5%)
White smoke is generated when material starts to carbonize at 150°C.
- (b) Binder with fine glass fiber gasket.
White smoke is generated when material starts to carbonize at 150°C.
- (c) PTFE gasket and tape to hold fine glass fiber gasket
Gasket starts to carbonize at 150°C but tapes are hardly scattered with held by filter and its gasket.

(1) Blank ignition is required at the highest temperature (in actual use) for 1 hour.

* Do not pre-burn the filter over designed temperatures stated on technical drawing.

* You can judge maximum temperature to use in by materials of the filter.

Sealant	White-colored Silicon (ATM(C)E,AST(C)E)	Black-colored Silicon (ATM(C)H,ASTCH)	Glass Fiber	
			(ATMV,GCV)	(GCW)
Max. Temperature	180°C	250°C	400°C	500°C

- (2) Please do blank ignition at site even if it is done at our factory.
- (3) Increase temperature gradually at 10°C/min or lower.
- (4) Extend time for blank ignition if white smoke is still generated.
- (5) Pay attention to move filter as binder performance weakens upon blank ignition.

2. In transport

- (1) Handle carton box as instructed. Hold carton box firmly with both hands, and do not carry it on the shoulder.
- (2) Unload carton box gently as frame and filter media are easily damaged.
Open carton box to check damage on if dropped.
- (3) Load carton box vertically only. Up to 3 cartons can be put upon.
- (4) Avoid traveling on unpaved road even filter is designed to withstand vibration in transit.
Load carton box in truck equipped to prevent cargo from rain.

3. In storage

- (1) Do not place the carton directly on a floor. Use pallet to take space.
- (2) Load carton box vertically only. Up to 3 cartons can be put upon.
- (3) Store carton box as originally packed. Repack filter with PE bag tightly sealed when carton is unpacked.

4. In installation

- (1) To decrease damage to filter, open carton, put it upside down and then pull up the carton instead of filter when unpacking.
- (2) Wear gloves when handling filter and do not touch it by naked hands.
Grease or fingerprint may cause stain at high temperature.
- (3) Do not touch media and stay for reinforcement but hold frame only to handle filter.
- (4) Never step on filter as it is easily damaged.
- (5) Install filter with airflow direction shown on a label.
- (6) Install filter by tightening evenly the gasket.
Do not remove filter once installed until replacement to avoid leakage caused by damage on gaskets.
- (7) Fine glass fiber gaskets are not pasted on the filter because it is easy to come off.
Please past the gaskets on the filter at site.

5. In use

- (1) Record initial pressure drop at installation.
- (2) Blank ignition is required upon installation.
- (3) White smoke might be generated after blank ignition. Pay special attention to decrease temperature.
- (4) After blank ignition, filter media become weaker with carbonization of its binder. So avoid shock on the filter.
- (5) Do not remove filter once installed until replacement to avoid leakage caused by damage on gaskets.
Also tapes to hold gasket comes off easily upon carbonization.
Please use new gaskets when re-install the filter.
- (6) Turn on/off airflow gradually as Particle maybe generated at the time when apparatus is turned on/off.
- (7) Replace the filter when the measurement of pressure drop comes to its final.
- (8) When use in a condition with special gas or chemical, contact ahead.

6. Directions to dispose filter

- (1) Discard filter as industrial disposal.

This catalog is subject to change without any prior notice



NIPPON MUKI CO., LTD.

HEAD Office

Kokubu Bldg., 1-1-1, Nihonbashi, Chuo-ku, Tokyo, 103-0027, Japan Tel.+81-3-5290-5905

Tohoku Office

Sompo Japan Sendai KY Bldg., 3-10-19, Chuo, Aoba-ku, Sendai City, 980-0021, Japan Tel.+81-22-266-7531

Osaka Office

Sumitomo Bldg., 4-5-33, Kitahama, Chuo-ku, Osaka City, 541-0041, Japan Tel.+81-6-6201-3751

Chubu Office

Seifu Bldg., 3-21-25, Marunouchi, Naka-ku, Nagoya City, 460-0002, Japan Tel.+81-52-957-5900

Kyushu Office

Solon Akasaka Bldg., 1-9-33, Daimyo, Chuo-ku, Fukuoka City, 810-0041, Japan Tel.+81-92-715-1651

Hiroshima Office

Nomura Fudousan Otemachi Bldg., 2-8-5, Otemachi, Naka-ku, Hiroshima City, 730-0051, Japan Tel.+81-82-248-3920

NIPPON MUKI(SHANGHAI) CO., LTD.

Room 6406, Business Center, Rui Jin Guest House, 118 Rui Jin 2 Road, Shanghai, 200020, China Tel.+86-21-6445-0176

<http://www.nipponmuki.co.jp/>