Heat-Resistant Air Filter

Features

1.Heat resistance

The High temperature filters from 150℃ up to 500℃ are available.
The filter is designed with special heat resistant materials.

2.Various dimensions

Special size is available upon request.

NIPPON **MUKI**

Contents

Tempepature	Model number						Application
	ULPA	HEPA	Semi HEPA	Medium	Pre	Page	
500℃	—	ATMWC	—	—	—	3	•Depyrogenation tunnel •Clean Oven •Drying Process •Incinerator •Exhaust Processing
		—	GCW			4	
450℃	—	—	—	—	CKR	20	
350℃ (Max.400℃ x 1h)	—	ATMV	—	—	—	5	
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				ASTCE			
120℃	ATMMC	—	—	—	—	18	
110℃	MMTC	—	—	—	—	19	

Tempepature	Model	Frame	Media	Separator	Sealant	Gasket
500℃	ATMWC	Stainless steel	Glass fiber with SUS gauze	Stainless steel	Glass fiber	Glass paper
	GCW					
350℃ (Max. 400℃x1h)	ATMV ATMVC GCV	Stainless steel	Glass paper with SUS gauze	Stainless steel	Glass paper	Glass paper
	H14CU H13CU (Heatmos)		Glass paper		Glass fiber + Ceramic	
	ATMCU				Glass paper	
250℃	H14CH H13CH	Stainless steel	Glass paper	Aluminum	Glass fiber + Silicone	PTFE
	ATMH ATMCH ASTCH					
	ATMCH-SL				Glass fiber	
150℃ (Max.180℃x1h)	ATME ATMCE ASTE ASTCE	Stainless steel	Glass paper	Aluminum	Silicone	Silicone
120℃ (Max.180℃x1h)	ATMMC	Aluminum	Glass paper	Aluminum	Silicone	Silicone
110℃	MMTC	Aluminum	Glass paper	Aluminum	Silicone	Silicone

Atomos 500℃ heat-resistant HEPA filter ATMWC

Model number

ATMWC−□−□−FS4□

- Add "Z" for special model
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point

- Ultra heat-resistant filter for continuous operation up to 500℃.
- Low particle generation at high temperature.
- No silicone is used.
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
			Initial	Final		
ATMWC−20−P−F	610×610×290	20	300	500	99.97 at 0.3μm	28
ATMWC−14−Q−F	610×610×150	14	250			15

Materials and Temperature

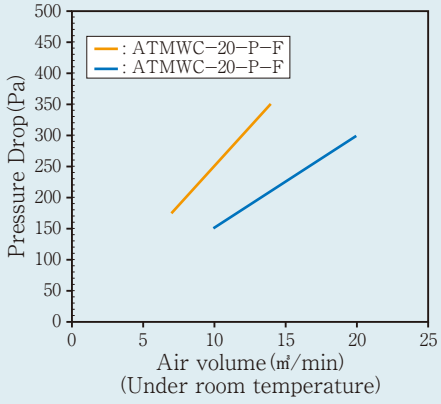
Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass fiber with SUS gauze	Stainless steel	Glass fiber	Glass paper	500	550(1h)

Dimension available

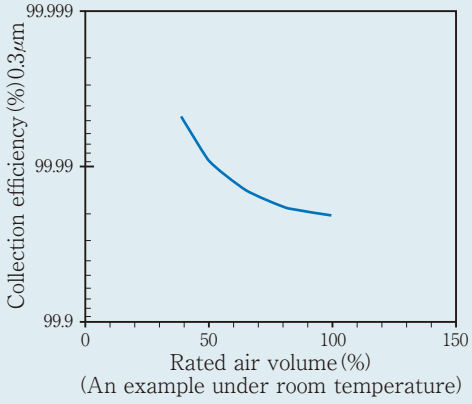
Depth(mm)	Height(mm)	Width(mm)
290	305~762	305~610
150	305~762	305~915

Specification

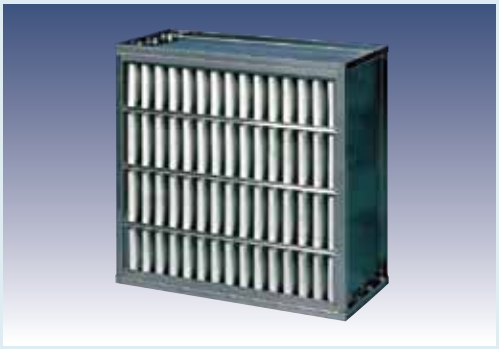
Air Volume vs. Pressure Drop



Air Volume vs. Collection Efficiency



Atomos
500℃ heat-resistant
Semi-HEPA filter GCW



Model number

GCW−□−□−L−F□

- Add "Z" for special model
- Collection efficiency L : 90%
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point

- Ultra heat-resistant filter for continuous operation up to 500℃.
- Low particle generation at high temperature.
- No silicone is used.
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
			Initial	Final		
GCW−31−P−L−F	610×610×290	31	245	400	90 at 0.5-1 μm	21
GCW−17−Q−L−F	610×610×150	17				13

Materials and Temperature

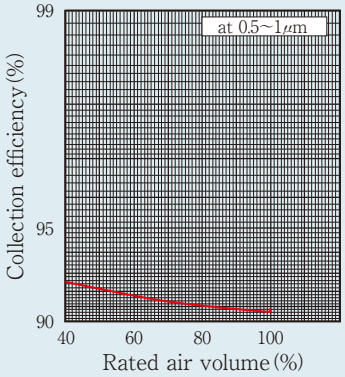
Materials					Temperature(℃)
Frame	Media	Separator	Sealant	Gasket	
Stainless steel (Surface processed)	Glass fiber with SUS gauze	Stainless steel	Glass fiber	Glass paper	Maximum 500

Dimension available

Depth(mm)	Height(mm)	Width(mm)
290	305~760	305~760
150	305~760	305~915

Specification

Air Volume vs. Collection Efficiency



Atomos
350℃ heat-resistant HEPA filter ATMV

Model number

ATMV−□−□−FS4□

- Add "Z" for special model
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point

- Ultra heat-resistant filter for continuous operation up to 350℃.
- Low particle generation at high temperature.
- No silicone is used.
- Temperature : Max.400℃ x 1hour
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
			Initial	Final		
ATMV−6−P−FS4	500×500×290	6	245	490	99.97 at 0.3μm	17
ATMV−10−P−FS4	610×610×290	10				21
ATMV−4−Q−FS4	500×500×150	4				11
ATMV−7−Q−FS4	610×610×150	7				13

Materials and Temperature

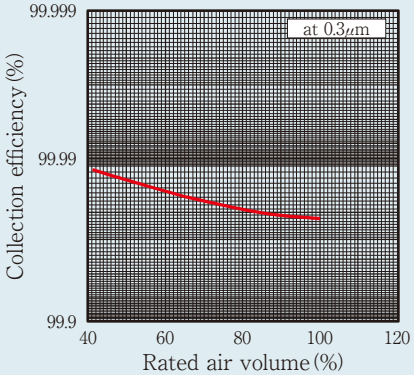
Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass fiber with SUS gauze	Stainless steel	Glass fiber	Glass paper	350	400(1h)

Dimension available

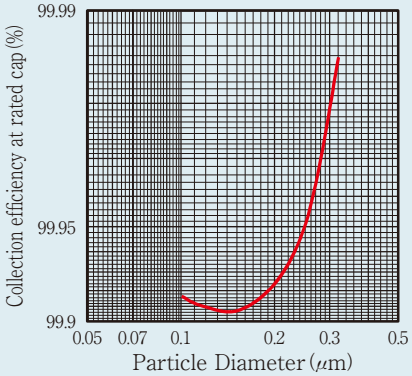
Depth(mm)	Height(mm)	Width(mm)
290	305~760	305~760
150	305~760	305~915

Specification

Air Volume vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



Atomos
350℃ high heat-resistant HEPA filter ATMVC

Model number

ATMVC−□−□−FS4□

- Add "Z" for special model
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point

- Ultra heat-resistant filter for continuous operation up to 350℃
- Low particle generation at high temperature.
- No silicone is used.
- Temperature : Max.400℃ x 1hour
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
			Initial	Final		
ATMVC−20−P−FS4	610×610×290	20	300	500	99.99 at 0.3μm	26
ATMVC−14−Q−FS4	610×610×150	14	350			15

Materials and Temperature

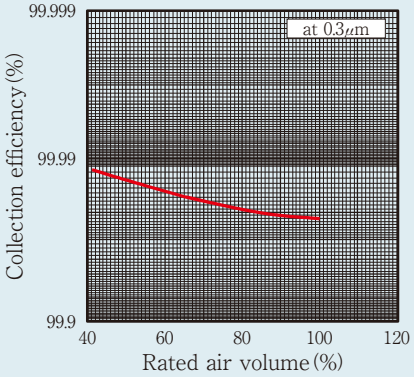
Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass fiber with SUS gauze	Stainless steel	Glass fiber	Glass paper	350	400(1h)

Dimension available

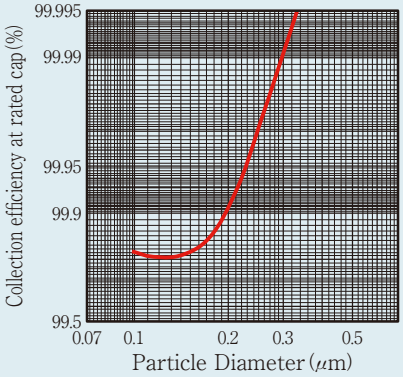
Depth(mm)	Height(mm)	Width(mm)
290	305~762	305~610
150	305~762	305~915

Specification

Air Volume vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



Atomos
350℃ heat-resistant
Semi-HEPA filter GCV

Model number

GCV−□−□−L−FS4□

- □ (Rated air volume): See Standard spec. ("Z" stands for special spec.)
- □ (Shows frame depth): P : 290mm Q : 150mm
- L: Collection efficiency L : 90%
- FS4□: Add "Z" for special model

Strong point

- Ultra heat-resistant filter for continuous operation up to 350℃.
- Low particle generation at high temperature.
- No silicone is used.
- Temperature : Max.400℃ x 1hour
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
			Initial	Final		
GCV−31−P−L−FS4	610×610×290	31	245	490	90 at 0.5-1 μm	21
GCV−17−Q−L−FS4	610×610×150	17				13

Materials and Temperature

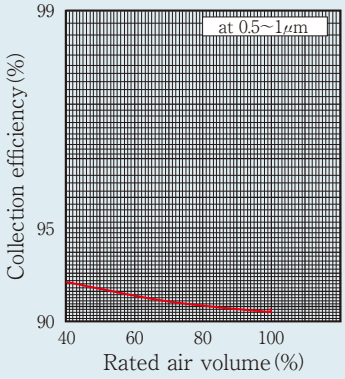
Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass fiber with SUS gauze	Stainless steel	Glass fiber	Glass paper	350	400(1h)

Dimension available

Depth(mm)	Height(mm)	Width(mm)
290	305~760	305~760
150	305~760	305~915

Specification

Air Volume vs. Collection Efficiency



HEATMOS
Compliant with EN standard 350℃ heat-resistant HEPA filter H13CU/H14CU

Model number

H13CU−□−□−FS4CS□

- Add "Z" for special model
- Shows frame depth P : 292mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

H14CU−□−□−FS4CS□

- Add "Z" for special model
- Shows frame depth P : 292mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point

- Compliant with EN 1822-2009
- H13 and H14 grade
- Temperature : Max.400℃ x 1hour
- Leak Free(Scan test avaitable)
- High air volume and low pressure drop
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	EN class	Weight (kg)	Air volume (m3/min)	Pressure drop(Pa)		Efficiency(%) @ MPPS
					Initial	Final	
H14CU−35−P−FS4CS	610×610×292	H14	24	35	270	500	99.995
H14CU−24−Q−FS4CS	610×610×150		15	24			
H13CU−35−P−FS4CS	610×610×292	H13	24	35	250	500	99.95
H13CU−24−Q−FS4CS	610×610×150		15	24			

MPPS : Most Penetrate Particle Size

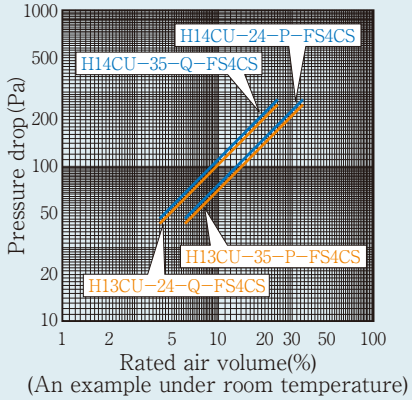
Materials and Temperature

Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass paper	Stainless steel	Glass fiber + Ceramic	Glass paper	350	400(1h)

Dimension available

Depth(mm)	Height(mm)	Width(mm)
292	305~610	305~762
150	305~610	305~762

Air volume vs pressure drop



(An example under room temperature)

Atomos 350℃ heat-resistant HEPA filter ATMCU

Model number

ATMCU−□−□−FS4HR□

- □ (Rated air volume): See Standard spec. ("Z" stands for special spec.)
- □ (Shows frame depth): P: 290mm Q: 150mm
- □ (Add "Z" for special model)

Strong point

- No silicone is used.
- Ultra heat-resistant filter for continuous operation up to 350°C.
- Temperature : Max.400℃ x 1hour
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Rated face velocity(m/s)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
				Initial	Final		
ATMCU−35−P−FS4HR	610×610×290	35	1.8	250	500	99.99 at 0.3μm	22
ATMCU−24−Q−FS4HR	610×610×150	24	1.2				13
ATMCU−Z−FS4HR	610×610×84	14.5	0.8				9.0

Materials and Temperature

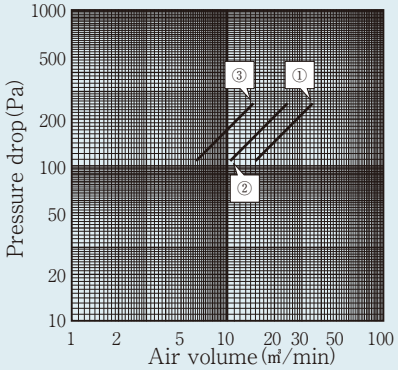
Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass paper	Stainless steel	Glass paper	Glass paper	350	400(1h)

Dimension available

Depth(mm)	Height(mm)	Width(mm)
290	150~762	150~760
150	150~762	150~915
84	305~610	305~915

Specification

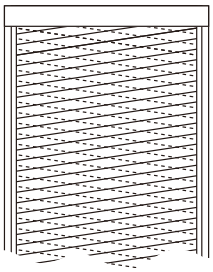
Air Volume vs. Pressure drop



(an example)

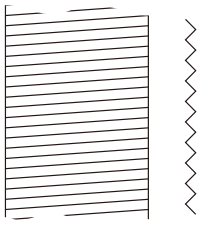
No.	Model	Dimension(mm)
①	ATMCU-35-P-FS4HR	610×610×290
②	ATMCU-34-Q-FS4HR	610×610×150
③	ATMCU-Z-FS4HR	610×610×84

Structure of the separator

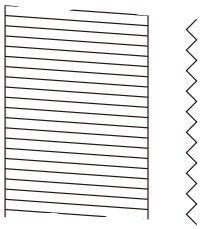


Solid line → The inflow side
Wavy line → The outflow side

Inflow side separator



Outflow side separator



ATOMOS
Compliant with EN standard 250℃ heat-resistant HEPA filter H13CH/H14CH

Model number

H13CH−□−□−FS4CS□

- Add "Z" for special model
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

H14CH−□−□−FS4CS□

- Add "Z" for special model
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point

- Compliant with EN 1822-2009
- H13 and H14 grade
- Continuous operation up to 250℃
- Temperature : Max.400℃ x 1hour
- Leak Free(Scan test passed)
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	EN class	Weight (kg)	Air volume (m3/min)	Pressure drop(Pa)		Efficiency(%) @ MPPS
					Initial	Final	
H14CH−35−P−FS4	610×610×290	H14	23	35	270	500	99.995
H14CH−24−Q−FS4	610×610×150		13	24			
H13CH−35−P−FS4	610×610×290	H13	23	35	250	500	99.95
H13CH−24−Q−FS4	610×610×150		13	24			

MPPS : Most Penetrate Particle Size

Materials and Temperature

Materials					Temperature(℃)
Frame	Media	Separator	Sealant	Gasket *1)	
Stainless steel	Glass paper	Aluminum alloy	Glass fiber +Silicone	PTFE	Maximum 250

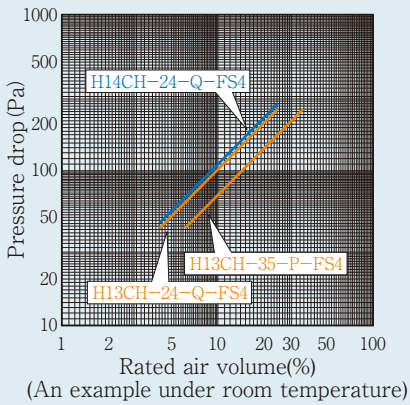
*1) Glass fiber or Silicone is available, the model name will be changed - ending with "Z".

Dimension available *2)

Depth(mm)	Height(mm)	Width(mm)
290	305~610	305~610
150	305~610	305~610

*2) H13CH is available for H762. Other dimensions are negotiable.

Air volume vs pressure drop



(An example under room temperature)

Atomos
250℃ heat-resistance
HEPA filter ATMH/ATMCH

Model number

ATMH−□−□−FS4□

- Add "Z" for special model
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

ATMCH−□−□−FS4□

- Add "Z" for special model
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point(ATMH)

- Standard 250℃ HEPA Filter
- Leak Free(Scan test available)
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Strong point(ATMCH)

- High capacity type of 250℃ HEPA Filter
- Leak Free(Scan test available)
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
			Initial	Final		
ATMH−7−P−FS4	300×300×290	7	245	490	99.97 at 0.3μm	6
ATMH−31−P−FS4	610×610×290	31				21
ATMH−39−P−FS4	610×760×290	39				27
ATMH−3−Q−FS4	300×300×150	3				4
ATMH−17−Q−FS4	610×610×150	17				12
ATMH−21−Q−FS4	610×760×150	21				15
ATMCH−41−P−FS4	610×610×290	41	249	498	99.97 at 0.3μm	23
ATMCH−28−Q−FS4	610×610×150	28				13

Materials and Temperature

Materials					Temperature(℃)
Frame	Media	Separator	Sealant	Gasket	
Stainless steel	Glass paper	Aluminum	Glass fiber + Silicone	PTFE	Maximum 250

Dimension available

〈ATMH〉

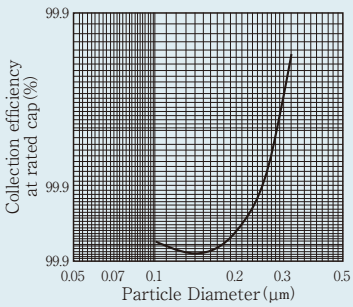
Depth(mm)	Height(mm)	Width(mm)
290	305~760	150~1,000
150	305~760	150~1,220

〈ATMCH〉

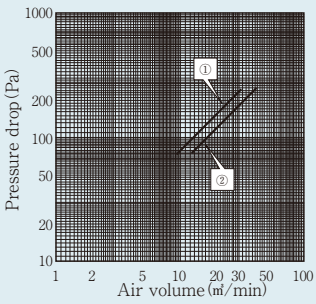
Depth(mm)	Height(mm)	Width(mm)
290	305~610	305~760
150	305~610	305~760

Specification

Particle Diameter vs. Collection Efficiency



Air Volume vs. Pressure Drop



No.	Model	Dimension(mm)
①	ATMH-31-P-FS4	610×610×290
②	ATMCH-41-P-FS4	610×610×290

Atomos 250℃ heat resistant large air volume type HEPA (without any silicone)

Model number

ATMCH−□−□−SLS4□

- Add "Z" for special model
- Shows frame depth P : 290(292)mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point

- No silicone is used.
- Environmental friendly product as frame can be reused. Easy to disassemble and dispose after use as no adhesive is applied.
- Application : Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
			Initial	Final		
ATMCH−41−P−SLS4	610×610×290	41	249	498	99.97 at 0.3μm	25.0
ATMCH−61−P−SLS4	760×760×292	61				33.0
ATMCH−28−Q−SLS4	610×610×150	28				13.5

Materials and Temperature

Materials					Temperature(℃)
Frame	Media	Separator	Sealant	Gasket	
Stainless steel	Glass paper	Aluminum	Glass fiber	PTFE	Maximum 250

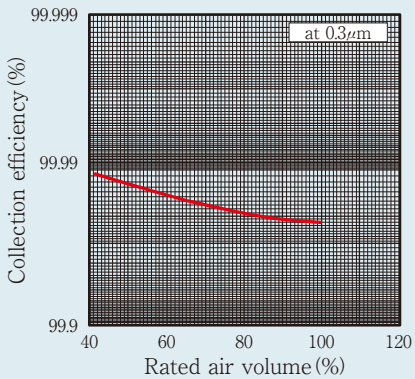
Dimension available

Depth(mm)	Height(mm)	Width(mm)
290(292)	305~760	305~1,000
150	305~610	305~760

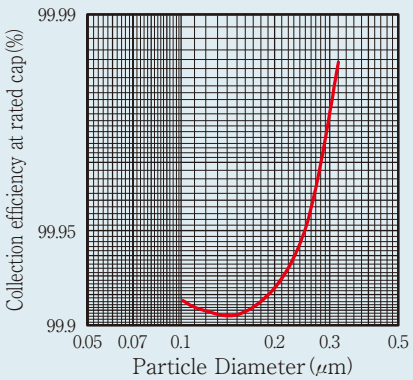
Remark 1: For over 610mm high or 760mm wide, only 292mm depth is available. Frame with reinforcement is to be used.

Specification

Air Volume vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



Astron
250℃ heat-resistant medium filter
ASTCH

Model number

ASTCH−□−□FS4□

- Add "Z" for special model
- Collection efficiency
  90 : PSAM90%　　60 : PSAM60%
  ※PSAM:Photo scattering accumulation method
- Shows dimension.See Standard spec. "Z" stands for special spec.

Strong point

・High capacity type of 250℃ secondary filter
・Application : Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa) Initial	Pressure drop(Pa) Final	Collection efficiency(%)	Weight (kg)
ASTCH−36−※FS4	500×500×290	34.5	※=90:167 ※=60:137	※=90:343 ※=60:294	※90=90 ※60=60	15
ASTCH−56H−※FS4	610×305×290	24.0				12
ASTCH−56−※FS4	610×610×290	53.5				21
ASTCH−18−※FS4	500×500×150	16.5	※=90:118 ※=60:　78	※=90:245 ※=60:196	PSAM	5
ASTCH−28−※FS4	610×610×150	26.0				12

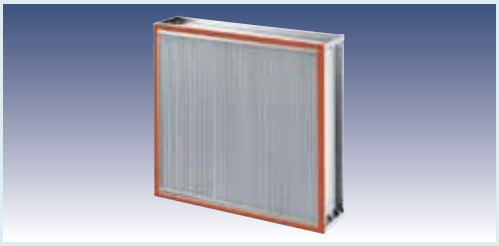
Materials and Temperature

Materials					Temperature(℃)
Frame	Media	Separator	Sealant	Gasket	
Stainless steel	Glass paper	Aluminum	Glass fiber + Silicone	PTFE	Maximum 250

Dimension available

Depth(mm)	Height(mm)	Width(mm)
290	150~610	305~1,000
150	150~610	305~1,000

Atomos
150℃ heat-resistant
HEPA filter ATME/ATMCE



Model number

ATME−□−□−ES4□

- Add "Z" for special model
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

ATMCE−□−□−ES4□

- Add "Z" for special model
- Shows frame depth P : 290mm Q : 150mm
- Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point(ATME)

- Standard 150℃ HEPA Filter
- Temperature : Max.180℃ x 1hour
- Application : Clean Oven, Drying process.

Strong point(ATMCE)

- High capacity type of 150℃ HEPA filter
- Temperature : Max.180℃ x 1hour
- Application : Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
			Initial	Final		
ATME−31−P−ES4	610×610×290	29.5	245	490	99.97 at 0.3μm	19
ATME−39−P−ES4	610×760×290	37.5				24
ATME−17−Q−ES4	610×610×150	16.5				10
ATME−21−Q−ES4	610×760×150	20.5				13
ATMCE−41−P−ES4	610×610×290	39.5	249	498	99.97 at 0.3μm	21
ATMCE−51−P−ES4	610×760×290	50.0				26
ATMCE−28−Q−ES4	610×610×150	27.0				12
ATMCE−34−Q−ES4	610×760×150	34.0				14
ATMCE−50−P−ETS4	610×610×290	48.0	249	498		19
ATMCE−62−P−ETS4	610×760×290	61.0				24

Materials and Temperature

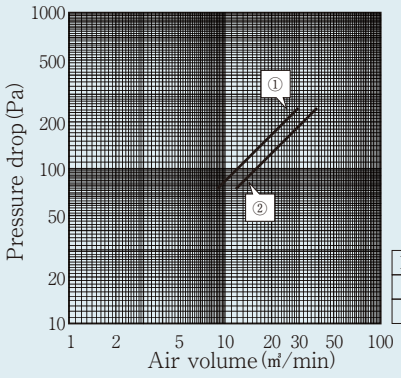
Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass paper	Aluminum	Silicone	Silicone	150	180(1h)

Dimension available

Depth(mm)	Height(mm)	Width(mm)
290	150~760	150~1,500
150	150~760	150~1,500

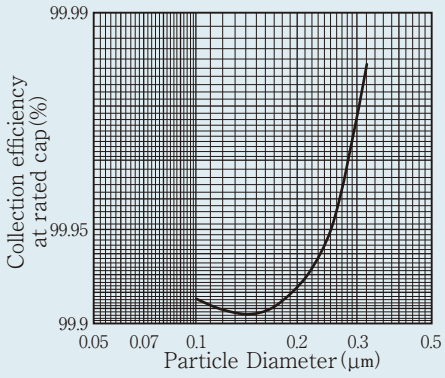
Specification

Air Volume vs. Pressure Drop

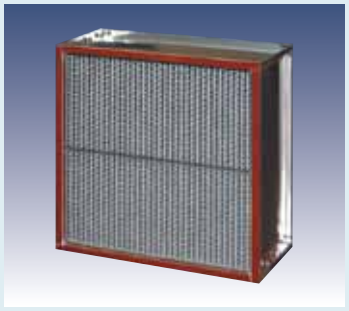


No.	Model	Dimension (mm)
①	ATME-31-P-ES4	610×610×290
②	ATMCE-41-P-ES4	610×610×290

Particle Diameter vs. Collection Efficiency



Astron
150℃ heat-resistant medium filter



Model number

ASTE−□−□ES4□

- □ (last): Add "Z" for special model
- □ (middle): Collection efficiency
  90 : PSAM90%　60 : PSAM60%
  ※PSAM:Photo scattering accumulation method
- □ (first): Rated air volume:See Standard spec.("Z" stands for special spec.)

ASTCE−□−□ES4□
(High capacity type)

- □ (last): Add "Z" for special model
- □ (middle): Collection efficiency
  95 : PSAM90%　60 : PSAM60%
  ※PSAM:Photo scattering accumulation method
- □ (first): Rated air volume:See Standard spec.("Z" stands for special spec.)

Strong point

- Standard and High capacity type of 150℃ secondary filter
- Temperature : Max.180℃ x 1hour
- Application : Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa) Initial	Pressure drop(Pa) Final	Collection efficiency(%)	Weight (kg)
ASTE−36−※ES4	500×500×290	34.5	※=90:123 ※=60: 78	※=90:255 ※=60:157	※90=90 ※60=60	11
ASTE−56H−※ES4	610×305×290	24.0				10
ASTE−56−※ES4	610×610×290	53.5				16
ASTE−18−※ES4	500×500×150	16.5	※=90: 78 ※=60: 39	※=90:157 ※=60: 48	PSAM	6
ASTE−28−※ES4	610×610×150	26.0				8

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa) Initial	Pressure drop(Pa) Final	Collection efficiency(%)	Weight (kg)
ASTCE−36−※ES4	500×500×290	34.5	※=95:167 ※=60:137	※=95:343 ※=60:294	※95=90~95 ※60=60~65	13
ASTCE−56H−※ES4	610×305×290	24.0				11
ASTCE−56−※ES4	610×610×290	53.5				19
ASTCE−18−※ES4	500×500×150	16.5	※=95:118 ※=60: 78	※=95:196 ※=60:196	PSAM	8
ASTCE−28−※ES4	610×610×150	26.0				10

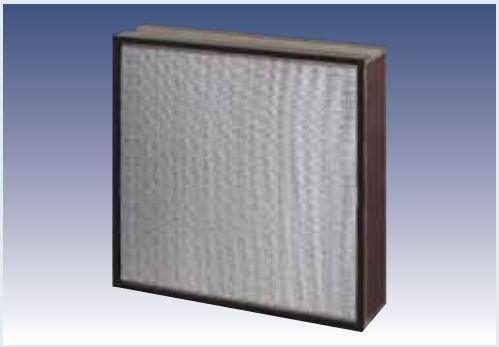
Materials and Temperature

Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass paper	Aluminum	Silicone	Silicone	150	180(1h)

Dimension available

Depth(mm)	Height(mm)	Width(mm)
290	150~610	150~1,220
150	150~610	150~1,220

Atomos 120℃ heat-resistant ULPA Filter ATMMC



Model number

ATMMC−□−ES4Z

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

Strong point

- Thin-type heat-resistant ULPA filter
- Temperature: Max.180℃x1hour
- Application: Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Initial Pressure drop(Pa)	Efficiency(%) @ 0.1-0.15μm	Weight (kg)
ATMMC-Z-ES4Z	457×457×90	6.0	186	99.9995	4.5
ATMMC-Z-ES4Z	610×457×90	8.5			5.0
ATMMC-17-ES4Z	610×610×90	12.0			7.0
ATMMC-Z-ES4Z	610×762×90	15.0			8.0
ATMMC-Z-ES4Z	610×915×90	18.0			9.5

Materials and Temperature

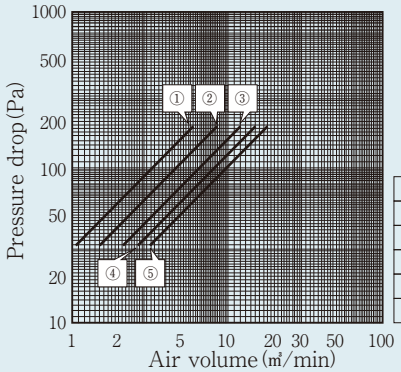
Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Stainless steel	Glass fiber	Aluminum	Silicone	Silicone	120	180(1h)

Dimension available

Depth(mm)	Height(mm)	Width(mm)
90	305~610	305~1,220

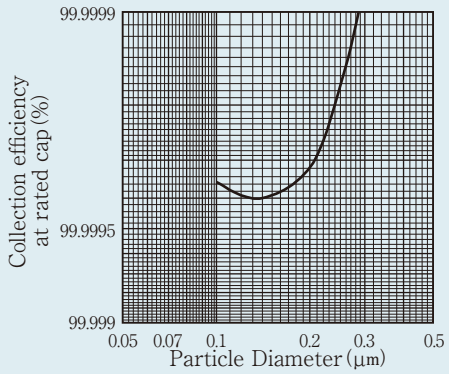
Specification

Air Volume vs. Pressure drop

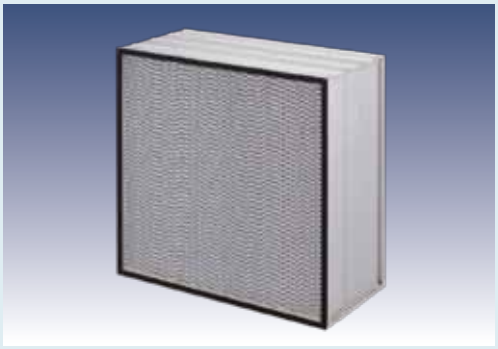


No.	Model	Dimension(mm)
①	ATMMC-Z-ES4Z	457×457×90
②	ATMMC-Z-ES4Z	610×457×90
③	ATMMC-12-ES4Z	610×610×90
④	ATMMC-Z-ES4Z	610×762×90
⑤	ATMMC-Z-ES4Z	610×915×90

Particle Diameter vs. Collection Efficiency



Atomos 110℃ heat-resistant ULPA Filter MMTC



Model number

MMTC−□−□−E□Z

- Frame type / P: E48T Q: ES4
- Shows Frame depth / P: 290mm Q: 150mm
- Rated air volume:See Standard spec.(“Z” stands for special spec.)

Strong point

·Heat-resistant ULPA Filter
·Application: Depyrogenation Tunnel, Clean Oven, Drying process.

Standard specification

Model	Dimension(mm) H×W×D	Rated air volume (m^3/min)	Pressure drop(Pa)		Efficiency(%) @ 0.1-0.2μm	Weight (kg)
			Initial	Final		
MMTC-56-P-E48TZ	610×610×290	41	245	498	99.995	15
MMTC-28-Q-ES4Z	610×610×150	23				9

Materials and Temperature

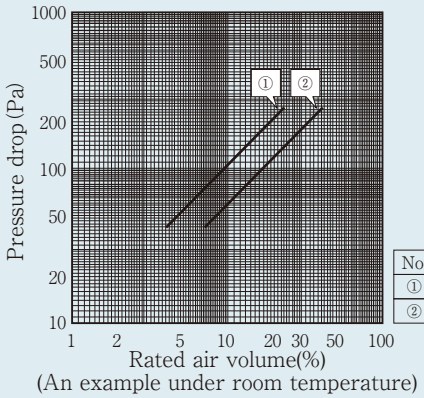
Materials					Temperature(℃)	
Frame	Media	Separator	Sealant	Gasket	Normal	Maximum
Aluminum	Glass paper	Aluminum	Silicone	Silicone	120	180(1h)

Dimension available

Depth(mm)	Height(mm)	Width(mm)
290	305~610	305~915
150	305~610	305~915

Specification

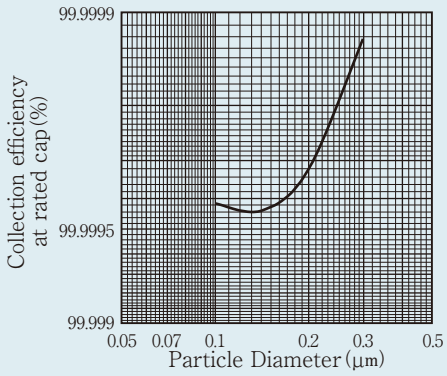
Air Volume vs. Collection Efficiency



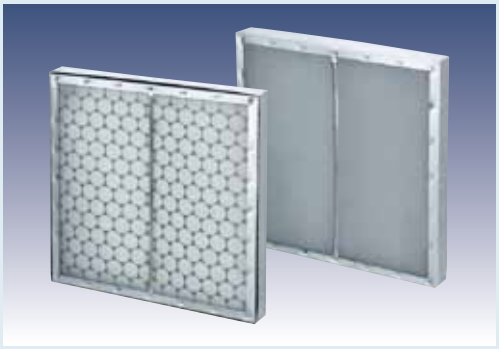
(An example under room temperature)

No.	Model	Dimension (mm)
①	MMTC-28-Q-ES4Z	610×610×150
②	MMTC-56-E48TZ	610×610×290

Particle Diameter vs. Collection Efficiency



CKR Filter
(Heat resistant prefilter)



Model number

CKR□□

- Material No.
- Media No.

Strong point

- Glass fiber media with high heat resistant
- Temperature : Max.450℃
- Application. Incinerator, Exhaust Processing

Media spec.(sample)

No.	Media No.	Dimension(mm) H×W×D	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	53.5

Materials

No.	Material no.	Frame	Holder		Note.
			Inlet	Outlet	
1	C13	Steel plate	Punched metal	Mesh	·Heat resistant ·Chemical resistant ·Media is replaceable
2	S99	Stainless steel	Mesh	Mesh	

Other materials are also avairable.

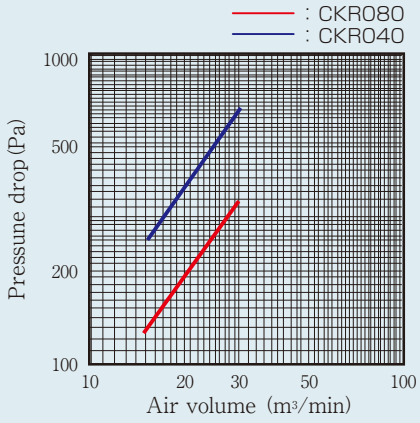
Dimension available

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

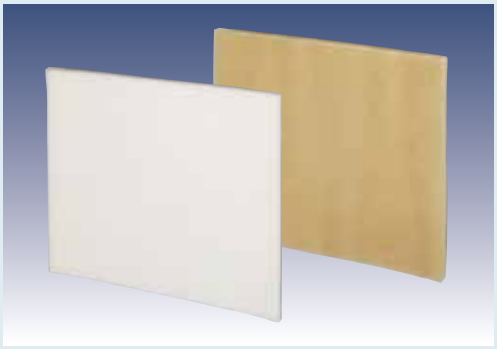
＊1 25mm thickness is also available.

Specification

Air Volume vs. Pressure drop



DSH Filter
(Heat resistant prefilter)



Model number

DSH−□−□−M

- M:Shows only the filter material
- Rated air volume:See Standard spec. ("Z" stands for special spec.)
- Material No.

Strong point

- Glass-fiber media with high heat resistant
- Temperature : Max.180℃/240℃
- Application. Incinerator, Exhaust Processing

Standard specification

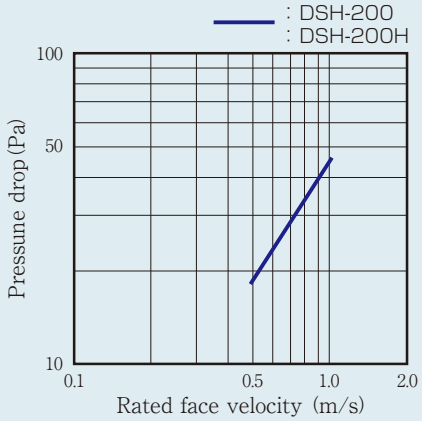
Model	Dimension(mm) H×W×D	Rated face velocity(m/s)	Pressure drop(Pa)		Collection efficiency(%)	Weight (kg)
			Initial	Final		
DSH−200−22−M	500×500×20	1.0	45	294	90	0.2
DSH−200H−22−M	500×500×20					0.2

Materials and Temperature

Model	Media	Temperature(℃)	Noncombustibility
DSH−200−22−M	Aromatic polyamide, Polyester	180	○
DSH−200H−22−M		240	○

Specification

Rated face velocity vs. Pressure drop



1. Introduction for pre-heating

High temperature resistant HEPA filter is designed to be used under the high temperature environment.
This type of filter is made of heat resistant materials. However, some materials are carbonized. (*)
Please pre-heat before using 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 being carbonized at 150℃.
(b) Binder with fine glass fiber gasket :
White smoke is generated when material starts being carbonized at 150℃.
(c) PTFE gasket and tape to hold fine glass fiber gasket :
Gasket starts being carbonized at 150℃ but tapes are hardly scattered as it is held by filter frame and gasket.

(1) Pre-heating is required at the highest temperature (in actual use) for 1 hour.
*Do not pre-heat the filter over the temperatures stated on technical drawing.
*If the maximum temperature is not stated on technical drawing, refer to the table below.

Sealant	White-colored Silicon (ATMMC,ATM(C)E, AST(C)E)	Black-colored Silicon (H13CH,H14CH, ATM(C)H, ASTCH)	Glass Fiber	
			(ATMV, ATMVC, ATMCU, H13CU, H14CU,GCV)	(ATMWC,GCW)
Max. Temperature	180℃	250℃	400℃	500℃

(2) Please pre-heat at site even if it is done at our factory.
(3) Increase temperature gradually at 10℃/min or lower expect for Heamtmos(H13CU,H14CU).Heatmos should increase temperature at 5℃/min or lower.
(4) Extend time for pre-heating if white smoke is still generated.
(5) Handle with care as the filter media weakens after pre-heating.

2. In transportation

(1) Handle carton box as instructed. Hold up carton box with both hands. 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. Maximum 3 cartons can be piled up.
(4) Avoid having carton box wet and vibration in transportation.

3. In storage

(1) Do not put the carton box directly on a floor. Use pallet to make space. between carton box and floor.
(2) Store in a warehouse with no roof leaks and good ventilation.
(3) Load carton box vertically only. Up to 3 cartons can be put upon.
Store filter as originally packed. Repack filter with plastic bag inside carton box.

4. In installation

(1) To avoid damage on filter, open the carton first, put it upside down on the ground and then pull up the carton only.
(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 hold frame only to handle filter.
(4) Never step on filter as it is easily damaged.
(5) When setting a filter on horizonal chamber, install the filter with the peak of folding at 90degrees to the ground.
(6) When setting a filter on vertical chamber, use HR labeled filter.
(7) Install filter with airflow direction shown on the label.
(8) Install filter firmly.
(9) Fine glass fiber gaskets are not put on the filter because it is easy to be broken. Please put the gaskets on the filter at user's site.

5. In use

(1) Record initial pressure drop just after installation.
(2) Use at or under the rated air volume. Keep a stright air flow. The filter might be damaged if strong air blow hits certain point even through using at or under the rated air volume.
(3) Pre-heating is required upon installation.
(4) White smoke might be generated when the temperature is increased, even after pre-heating.
(5) After pre-heating, filter media becomes weaker due to carbonization of binder. Handle with care.
(6) When the filter is temporary removed or replaced with new filter, use new gasket.
(7) Turn on/off airflow gradually as particle might be generated when fan is turned on/off.
(8) When the temperature is going up or down, particle might be generated from the material. Temperature control should be done gradually. Use at a constant temperature as much as possible.
(9) Fine glass fiber that cannot be measured by particle counter might be generated when using the filter.
(10) Replace the filter when it reaches to the final pressure drop.
(11) Lifetime of the material depends on the environment on site. If the drop of collection efficiency or any other problem are found, replace the filter.
(12) When it is used in special environment, contact us.

6. Direction to dispose filter.

(1) Discard filter as industrial waste.

This catalog is subject to change without any prior notice

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