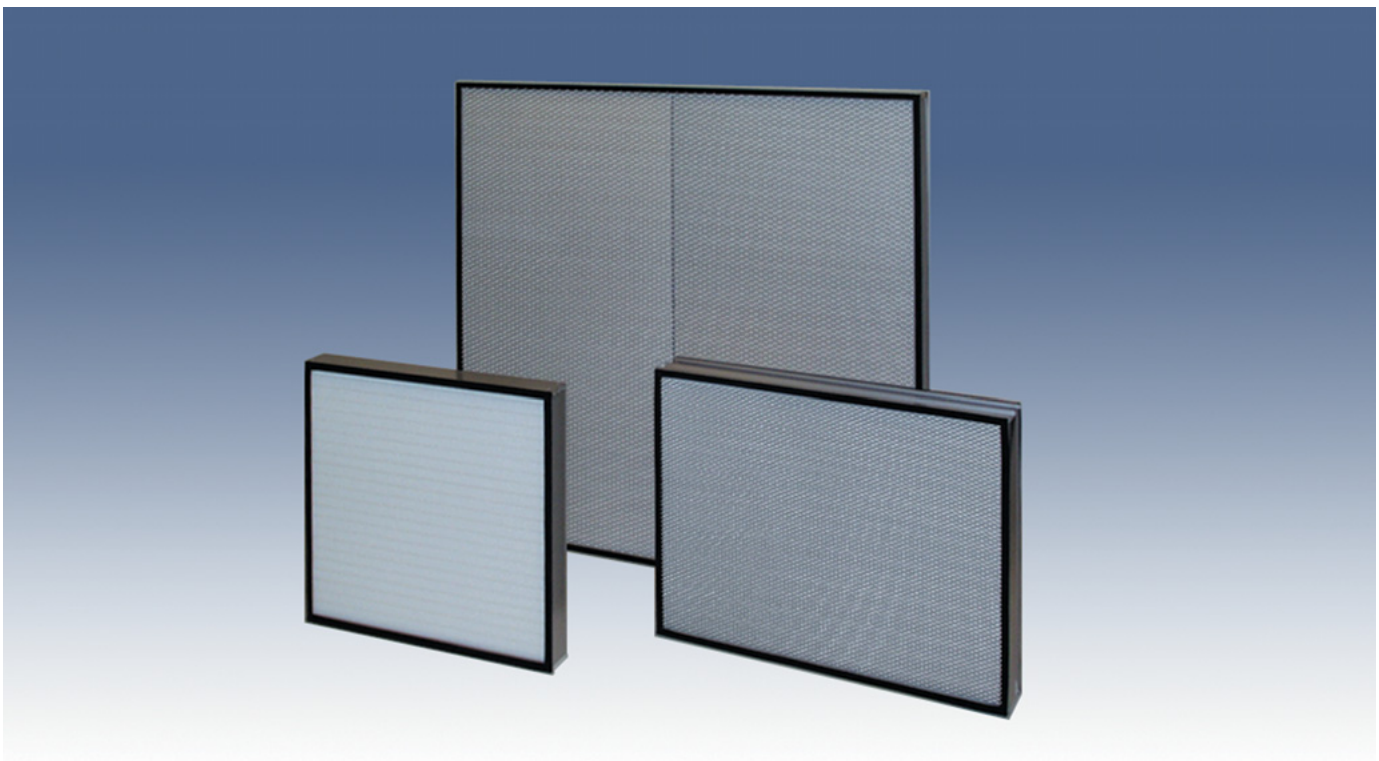
U-ULPA·ULPA·HEPA

HIGH EFFICIENCY FILTER (MINI PLEATS TYPE)



Features

1. Various Models

   We can design the filter with various requirements for its efficiency and pressure drop.

2. Various Dimensions

   We can design the filter with various dimension requested.

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2. Efficiency test methods
   2.1 Efficiency
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Type	Class	Filter Media	Model	Collection Efficiency (%)	Particle diameter (μm)	Usage	Page
Standard	U-ULPA	Glass fiber	MMDL	99.99999	0.1-0.15	Semiconductor, Liquid crystal, Electronics, Food, Hospital, Bio technology and Pharmaceutical Factory	3
			MMGL	99.99995	0.1-0.15		4
			MMZL	99.9999	0.1-0.15		5
	ULPA		ATMML	99.999-99.9995	0.1-0.15		6
			MMTL	99.995-99.999	0.1-0.15		7
	HEPA		ATML	99.99	0.3		8
High air volume type	HEPA		ATMLK	99.99	0.3		9
Low Outgas / Boron	U-ULPA	Low Boron/ Organic glass fiber	TGGL	99.99995	0.1		10
	ULPA		TGMML	99.9995	0.1		
	HEPA		TGML	99.99	0.3		
Low Organic	U-ULPA	Low Organic glass fiber	YGGL	99.99995	0.1		11
	ULPA		YGMML	99.9995	0.1		
	HEPA		YGML	99.99	0.3		
Low Boron	U-ULPA	Low Boron glass fiber	BGGL	99.99995	0.1		12
	ULPA		BGMML	99.9995	0.1		
	HEPA		BGML	99.99	0.3		
Boron less	U-ULPA	PTFE	BFGL	99.99995	0.1-0.2		13

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1. Component Material & Conditions for use

Item	Component materials				Conditions	
	Frame	Ribbon	Sealant	Gasket	Temperature	Humidity
Standard MMDL, MMGL, MMZL, ATMML, MMTL, ATML ATMLK	Aluminum	Hotmelt	Polyurethane	Chloroprene	＜60℃	＜95%RH
Low out gas, Low Boron TGGL, TGMML, TGML	Aluminum	Hotmelt	Polyurethane	EPDM	＜60℃	＜60%RH
Low Organic YGGL, YGMML, YGML	Aluminum	Hotmelt	Polyurethane	EPDM		
Low Boron BGGL, BGMML, BGML	Aluminum	Hotmelt	Polyurethane	Chloroprene		
Boron free BFGL	Aluminum (or poly fancy plywood)	Hotmelt	Polyurethane	Chloroprene	＜60℃	＜95%RH

2. Efficiency Test Method

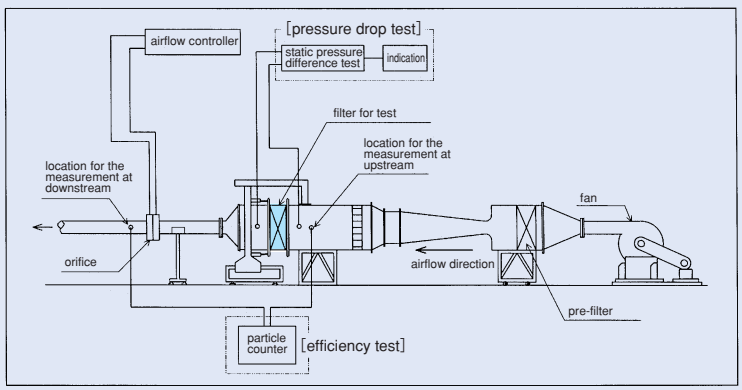
2.1 Efficiency Test

(a) Procedure: Count numbers of particles both at up and down streams.

The formulation is: Efficiency (%) = (1 - particles at downstream/particles at upstream) X 100

・In conformance with JIS B 9908-1

(b) Apparatus



2.2 Scanning Test

(a) Procedure : Scan downstream by running particle counter to check media quality. Run Scanner at 50mm/s.

・In conformance with IEST-RP-CC001.3 and JIS B 9927

(b) Apply to all filters.

2.3 Particle Test

Airborne particle, PAO and silica to be applied upon request. Apply silica particles only to "Low out gas /Low Boron" filters to maintain low-out gas filter's preformance.

Particle for test	Classification
Airborne particle	Apply to regular filters (Add silica when low density)
PAO	Upon request
Silica	Apply to Low out gas/Low Organic/Low Boron filters (apply to other filters upon request)

PAO: Poly-Alpha-Olefin

Atomos MMDL filter
(U-ULPA 0.01 μm filter)

Model number

MMDL−□−E□□

- Add "Z" for special model
- Frame Type　E 38：D 98mm, E 23：D 75mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
MMDL−39 −E38	1170×1170×98	0.5	39	147	294	99.99999 at 0.1-0.15 μm	12.5
MMDL−29 −E38	720 ×1470×98		29.5				11.0
MMDL−18 −E38	570 ×1170×98		18				7.5
MMDL−39 −E23	1170×1170×75		39	167			11.0
MMDL−29 −E23	720 ×1470×75		29				10.0
MMDL−18 −E23	570 ×1170×75		18				7.0
MMDL−39 −E41	1170×1170×65		39	187			10.0
MMDL−29 −E41	720 ×1470×65		29				9.0
MMDL−18 −E41	570 ×1170×65		18				6.0
MMDL−27 −E25	1170×1170×50	0.35	27				7.5
MMDL−21 −E25	720 ×1470×50		20.5				6.5
MMDL−13 −E25	570 ×1170×50		12.5				4.5

All model is approved by FM standard.

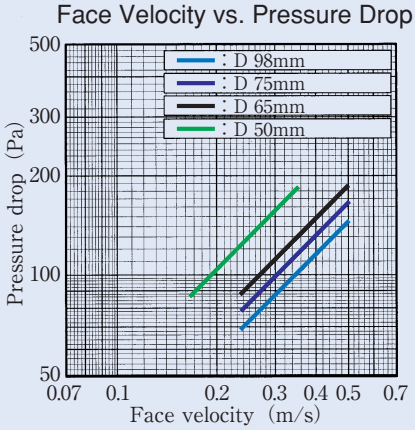
Dimension available

H (mm)	W (mm)
150～1220	150～1500

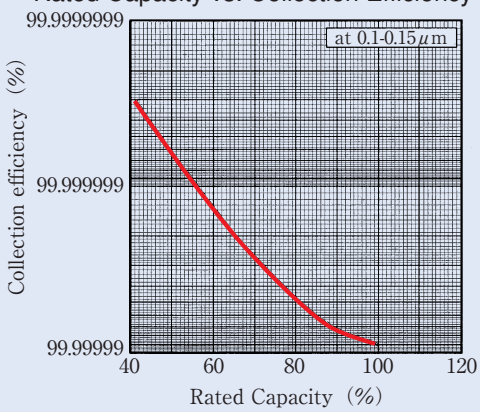
Faceguard should be on downstream side for reinforcement when filter height is between 916mm and 1220mm.

Specification

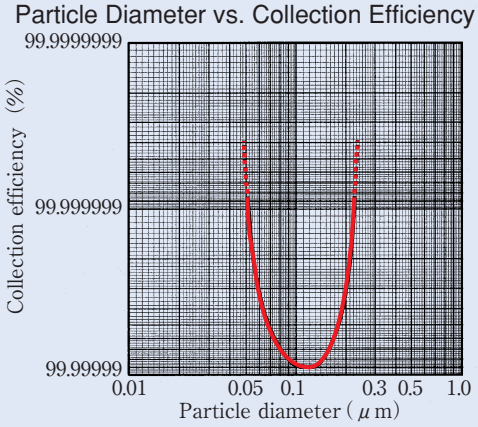
Face Velocity vs. Pressure Drop



Rated Capacity vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



Atomos MMGL filter
(U-ULPA 0.05 μm filter)

Model number

MMGL−□−E□□

- ("Z" stands for special spec.)
- Frame Type　E 38：D 98mm, E 23：D 75mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
MMGL−39 −E38	1170×1170×98	0.5	39	128	294	99.99995 at 0.1-0.15 μm	12.5
MMGL−29 −E38	720 ×1470×98		29.5				11.0
MMGL−18 −E38	570 ×1170×98		18				7.5
MMGL−39 −E23	1170×1170×75		39	147			11.0
MMGL−29 −E23	720 ×1470×75		29				10.0
MMGL−18 −E23	570 ×1170×75		18				7.0
MMGL−39 −E41	1170×1170×65		39	167			10.0
MMGL−29 −E41	720 ×1470×65		29				9.0
MMGL−18 −E41	570 ×1170×65		18				6.0
MMGL−27 −E25	1170×1170×50	0.35	27				7.5
MMGL−21 −E25	720 ×1470×50		20.5				6.5
MMGL−13 −E25	570 ×1170×50		12.5				4.5

All model is approved by FM standard.

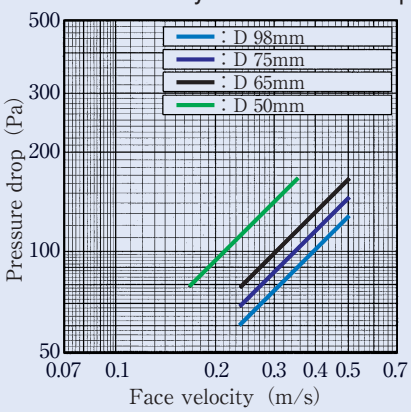
Dimension available

H (mm)	W (mm)
150～1220	150～1500

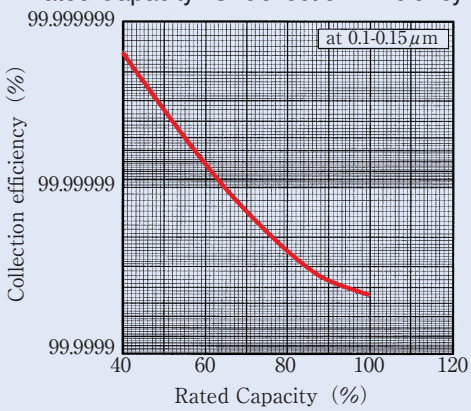
Faceguard should be on downstream side for reinforcement when filter height is between 916mm and 1220mm.

Specification

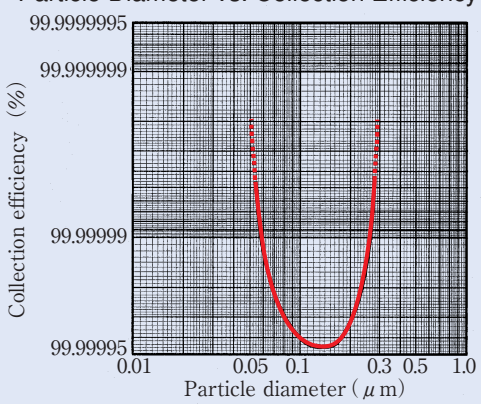
Face Velocity vs. Pressure Drop



Rated Capacity vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



Atomos MMZL filter
(U-ULPA filter)

Model number

MMZL－□－E□□

- Add "Z" for special model
- Frame Type　E 38：D 98mm, E 23：D 75mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
MMZL－39 －E38	1170×1170×98	0.5	39	108	294	99.9999 at 0.1-0.15 μm	12.5
MMZL－29 －E38	720 ×1470×98		29.5				11.0
MMZL－18 －E38	570 ×1170×98		18				7.5
MMZL－39 －E23	1170×1170×75		39	118			11.0
MMZL－29 －E23	720 ×1470×75		29				10.0
MMZL－18 －E23	570 ×1170×75		18				7.0
MMZL－39 －E41	1170×1170×65		39	142			10.0
MMZL－29 －E41	720 ×1470×65		29				9.0
MMZL－18 －E41	570 ×1170×65		18				6.0
MMZL－27 －E25	1170×1170×50	0.35	27				7.5
MMZL－21 －E25	720 ×1470×50		20.5				6.5
MMZL－13 －E25	570 ×1170×50		12.5				4.5

All model is approved by FM standard.UL approved model is available with special material. (UL900 Class2)

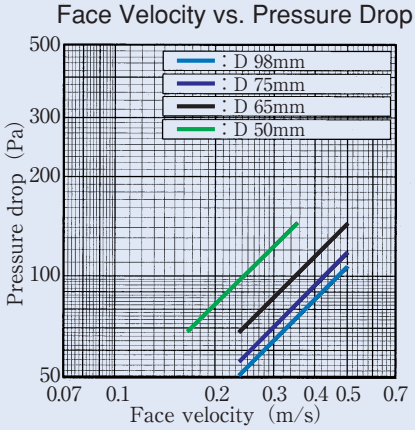
Dimension available

H (mm)	W (mm)
150～1220	150～1500

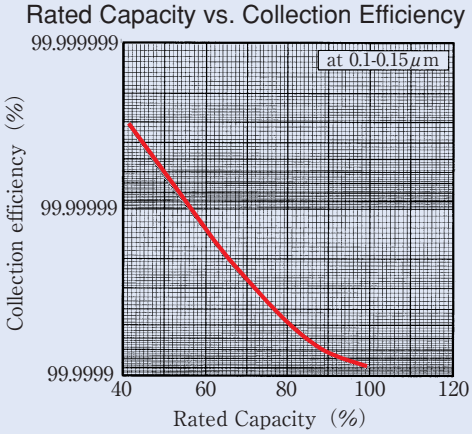
Faceguard should be on downstream side for reinforcement when filter height is between 916mm and 1220mm.

Specification

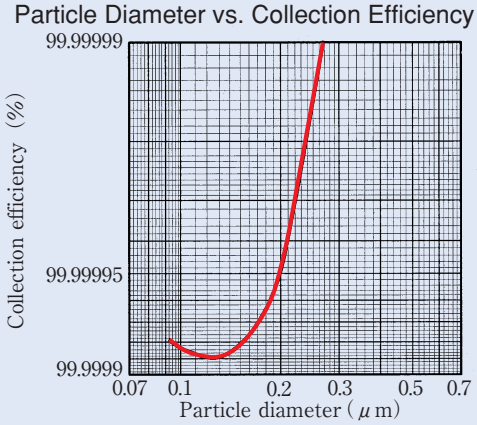
Face Velocity vs. Pressure Drop



Rated Capacity vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



Atomos ATMML filter (ULPA filter)

Model number

ATMML－□－E□□

- Add "Z" for special model
- Frame Type　E 38：D 98mm, E 23：D 75mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
ATMML－39 －E38	1170×1170×98	0.5	39	103	294	99.9995 at 0.1-0.15 μm	12.5
ATMML－29 －E38	720 ×1470×98		29.5				11.0
ATMML－18 －E38	570 ×1170×98		18				7.5
ATMML－39 －E23	1170×1170×75		39	108			11.0
ATMML－29 －E23	720 ×1470×75		29				10.0
ATMML－18 －E23	570 ×1170×75		18				7.0
ATMML－39 －E41	1170×1170×65		39	128		99.999 at 0.1-0.15 μm	10.0
ATMML－29 －E41	720 ×1470×65		29				9.0
ATMML－18 －E41	570 ×1170×65		18				6.0
ATMML－27 －E25	1170×1170×50	0.35	27				7.5
ATMML－21 －E25	720 ×1470×50		20.5				6.5
ATMML－13 －E25	570 ×1170×50		12.5				4.5

All model is approved by FM standard.

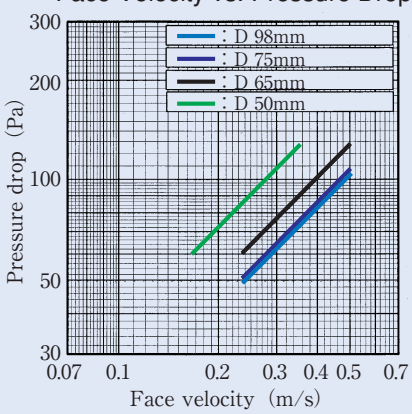
Dimension available

H (mm)	W (mm)
150～1220	150～1500

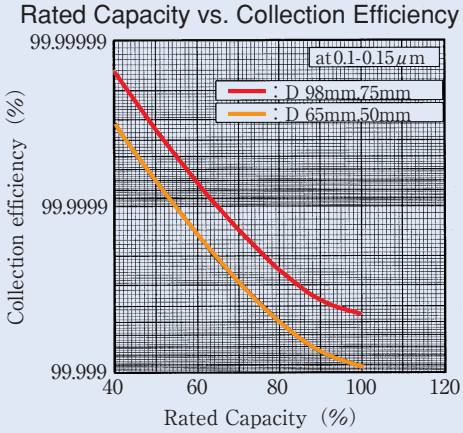
Faceguard should be on downstream side for reinforcement when filter height is between 916mm and 1220mm.

Specification

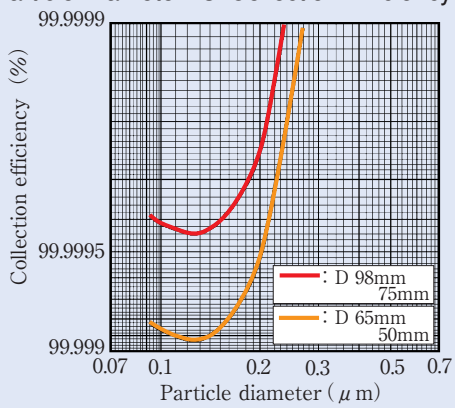
Face Velocity vs. Pressure Drop



Rated Capacity vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



Atomos MMTL filter
(ULPA filter)

Model number

MMTL－□－E□□

- Add "Z" for special model
- Frame Type　E 38：D 98mm, E 23：D 75mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
MMTL－39 －E38	1170×1170×98	0.5	39	98	294	99.999 at 0.1-0.15 μm	12.5
MMTL－29 －E38	720 ×1470×98		29.5				11.0
MMTL－18 －E38	570 ×1170×98		18				7.5
MMTL－39 －E23	1170×1170×75		39	103			11.0
MMTL－29 －E23	720 ×1470×75		29				10.0
MMTL－18 －E23	570 ×1170×75		18				7.0
MMTL－39 －E41	1170×1170×65		39	118		99.995 at 0.1-0.15 μm	10.0
MMTL－29 －E41	720 ×1470×65		29				9.0
MMTL－18 －E41	570 ×1170×65		18				6.0
MMTL－27 －E25	1170×1170×50	0.35	27				7.5
MMTL－21 －E25	720 ×1470×50		20.5				6.5
MMTL－13 －E25	570 ×1170×50		12.5				4.5

All model is approved by FM standard.UL approved model is available with special material. (UL900 Class2)

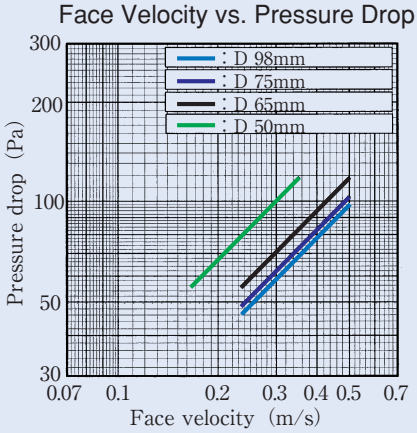
Dimension available

H (mm)	W (mm)
150～1220	150～1500

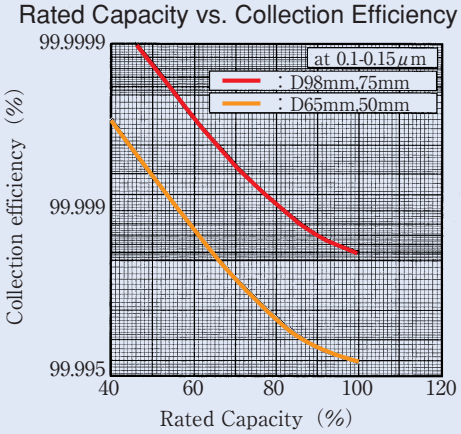
Faceguard should be on downstream side for reinforcement when filter height is between 916mm and 1220mm.

Specification

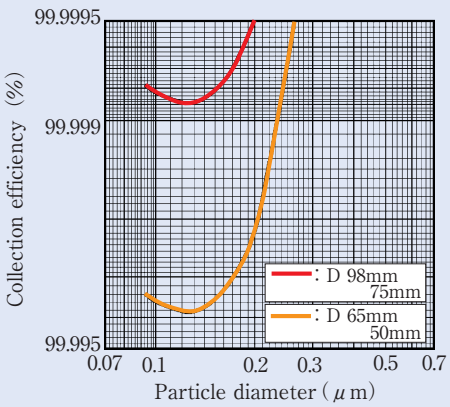
Face Velocity vs. Pressure Drop



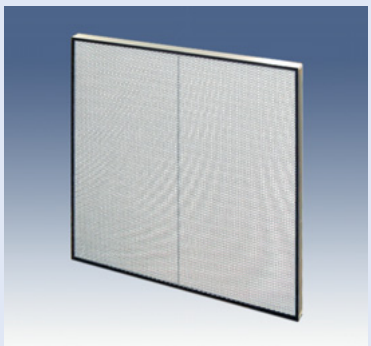
Rated Capacity vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



Atomos ATML filter (HEPA filter)



Model number

ATML－□－E□□

- Add "Z" for special model
- Frame Type　E 38：D 98mm, E 23：D 75mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
ATML－39 －E38	1170×1170×98	0.5	39	84	294	99.99 at 0.3 μm	12.5
ATML－29 －E38	720 ×1470×98		29.5				11.0
ATML－18 －E38	570 ×1170×98		18				7.5
ATML－39 －E23	1170×1170×75		39	88			11.0
ATML－29 －E23	720 ×1470×75		29				10.0
ATML－18 －E23	570 ×1170×75		18				7.0
ATML－39 －E41	1170×1170×65		39	98			10.0
ATML－29 －E41	720 ×1470×65		29				9.0
ATML－18 －E41	570 ×1170×65		18				6.0
ATML－39 －E25	1170×1170×50		39	147			7.5
ATML－29 －E25	720 ×1470×50		29				6.5
ATML－18 －E25	570 ×1170×50		18				4.5

All model is approved by FM standard.

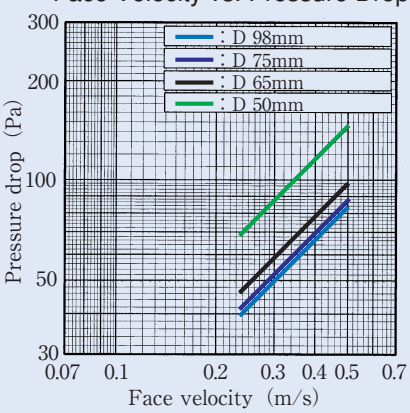
Dimension available

H (mm)	W (mm)
150～1220	150～1500

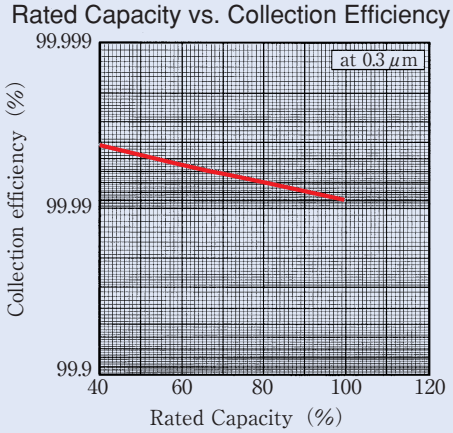
Faceguard should be on downstream side for reinforcement when filter height is between 916mm and 1220mm.

Specification

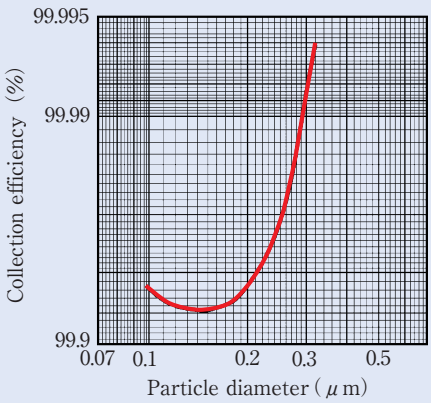
Face Velocity vs. Pressure Drop



Rated Capacity vs. Collection Efficiency

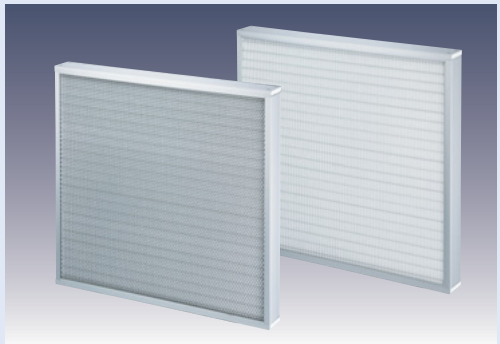


Particle Diameter vs. Collection Efficiency



HIGH AIR VOLUME TYPE MINI-PLEATS HEPA Filter

(Compared with conventional type,About 3times of air volume can be purified)



Model number

ATMLK－□－E□□

- Add "Z" for special model
- Frame Type　E38：D 98mm, E23：D 75mm, E41：D 65mm, E25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

Standard specification

Model	Dimension（mm） H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop（Pa）		Collection Efficiency (%)	Weight (kg)
				Initial	Final		
ATMLK-32-E38	610×610×98	1.61	32.0	245	498	99.99 at 0.3 μm	5.0
ATMLK-28-E23	610×610×75	1.43	28.0				4.0
ATMLK-25-E41	610×610×65	1.28	25.0				3.5

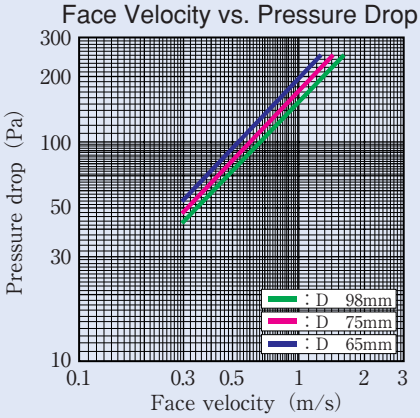
All model is approved by FM standard.

Dimension available

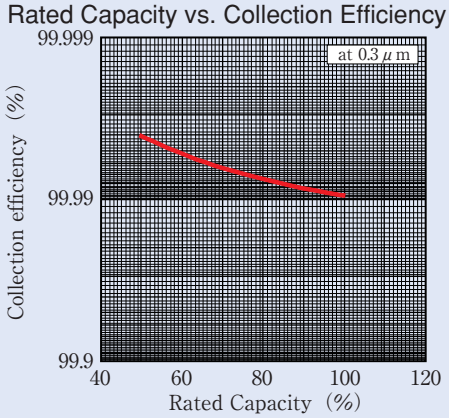
H（mm）	W（mm）
150～610	150～1220

Specification

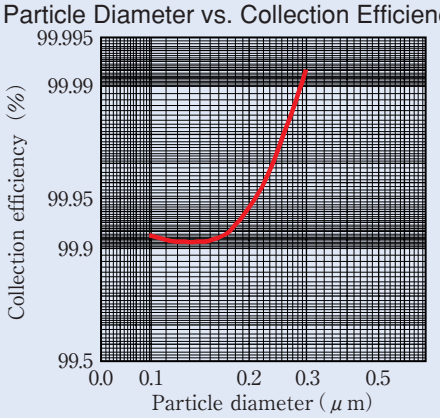
Face Velocity vs. Pressure Drop



Rated Capacity vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



NOUVELLE U-ULPA/ULPA/HEPA Filter

Low Outgas/Boron U-ULPA/ULPA/HEPA Filter

Model number

TG□□□−□−E□□

- Add "Z" for special model
- Frame Type E 38：D 98mm, E 23：D 75mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec. ("Z" stands for special spec.)

TGGL : U-ULPA TGMML : ULPA TGML : HEPA

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
TGGL−29 −E38	720×1470×98	0.5	29.5	128	294	99.99995 at 0.1 μm	11.0
TGGL−18 −E38	570×1170×98		18				7.5
TGGL−29 −E23	720×1470×75		29	147			10.0
TGGL−18 −E23	570×1170×75		18				7.0
TGGL−29 −E41	720×1470×65		29	157			9.0
TGGL−18 −E41	570×1170×65		18				6.0
TGGL−21 −E25	720×1470×50	0.35	20.5				6.5
TGGL−13 −E25	570×1170×50		12.5				4.5
TGMML−29 −E38	720×1470×98	0.5	29.5	118		99.9995 at 0.1 μm	11.0
TGMML−18 −E38	570×1170×98		18				7.5
TGMML−29 −E23	720×1470×75		29	127			10.0
TGMML−18 −E23	570×1170×75		18				7.0
TGMML−29 −E41	720×1470×65		29	147			9.0
TGMML−18 −E41	570×1170×65		18				6.0
TGMML−21 −E25	720×1470×50	0.35	20.5				6.5
TGMML−13 −E25	570×1170×50		12.5				4.5
TGML−29 −E38	720×1470×98	0.5	29.5	84		99.99 at 0.3 μm	11.0
TGML−18 −E38	570×1170×98		18				7.5
TGML−29 −E23	720×1470×75		29	88			10.0
TGML−18 −E23	570×1170×75		18				7.0
TGML−29 −E41	720×1470×65		29	98			9.0
TGML−18 −E41	570×1170×65		18				6.0
TGML−29 −E25	720×1470×50		29	127			6.5
TGML−18 −E25	570×1170×50		18				4.5

All model is approved by FM standard.

Dimension available

H (mm)	W (mm)
150～915	150～1500

Type of Filter	Filter media	Outgas Boron	Outgas Organic gas
Standard(Glass fiber media)	Glass fiber	1	1
Low Organic(Neuec filter)	Low Organic fiber	1	1/500
Low Boron(Low Boron filter)	Low Boron glass fiber	1/100	1/2
Low Outgas(Nouvelle filter)	Low Boron/ Organic glass fiber	1/100	1/500
Boron-free filter(Boron-free filter)	PTFE	0	1/2

Neuec U-ULPA/ULPA/HEPA filter
(Low Organic/U-ULPA/ULPA/HEPA filter)

Model number

YG□□□−□−E□□

- Add "Z" for special model
- Frame Type　E 38：D 98mm, E 23：D 75mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

YGGL : U-ULPA　YGMML : ULPA　YGML : HEPA

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
YGGL−29 −E38	720×1470×98	0.5	29.5	128	294	99.99995 at 0.1 μm	11.0
YGGL−18 −E38	570×1170×98		18				7.5
YGGL−29 −E23	720×1470×75		29	147			10.0
YGGL−18 −E23	570×1170×75		18				7.0
YGGL−29 −E41	720×1470×65		29	157			9.0
YGGL−18 −E41	570×1170×65		18				6.0
YGGL−21 −E25	720×1470×50	0.35	20.5				6.5
YGGL−13 −E25	570×1170×50		12.5				4.5
YGMML−29 −E38	720×1470×98	0.5	29.5	118		99.9995 at 0.1 μm	11.0
YGMML−18 −E38	570×1170×98		18				7.5
YGMML−29 −E23	720×1470×75		29	127			10.0
YGMML−18 −E23	570×1170×75		18				7.0
YGMML−29 −E41	720×1470×65		29	147			9.0
YGMML−18 −E41	570×1170×65		18				6.0
YGMML−21 −E25	720×1470×50	0.35	20.5				6.5
YGMML−13 −E25	570×1170×50		12.5				4.5
YGML−29 −E38	720×1470×98	0.5	29.5	84		99.99 at 0.3 μm	11.0
YGML−18 −E38	570×1170×98		18				7.5
YGML−29 −E23	720×1470×75		29	88			10.0
YGML−18 −E23	570×1170×75		18				7.0
YGML−29 −E41	720×1470×65		29	98			9.0
YGML−18 −E41	570×1170×65		18				6.0
YGML−29 −E25	720×1470×50		29	127			6.5
YGML−18 −E25	570×1170×50		18				4.5

All model is approved by FM standard.

Dimension available

H (mm)	W (mm)
150～915	150～1500

Type of Filter	Filter media	Outgas Boron	Outgas Organic gas
Standard(Glass fiber media)	Glass fiber	1	1
Low Organic(Neuec filter)	Low Organic fiber	1	1/500
Low Boron(Low Boron filter)	Low Boron glass fiber	1/100	1/2
Low Outgas(Nouvelle filter)	Low Boron/ Organic glass fiber	1/100	1/500
Boron-free filter(Boron-free filter)	PTFE	0	1/2

Low Boron U-ULPA/ULPA/HEPA filter

(Low Boron U-ULPA/ULPA/HEPA filter)

Model number

BG□□□−□−E□□

- Add "Z" for special model
- Frame Type　E 38：D 98mm, E 23：D 75mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

BGGL : U-ULPA　BGMML : ULPA　BGML : HEPA

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
BGGL−39 −E38	1170×1170×98	0.5	39	128	294	99.99995 at 0.1-0.2 μm	12.5
BGGL−29 −E38	720 ×1470×98		29.5				11.0
BGGL−18 −E38	570 ×1170×98		18				7.5
BGGL−39 −E23	1170×1170×75		39	147			11.0
BGGL−29 −E23	720 ×1470×75		29				10.0
BGGL−18 −E23	570 ×1170×75		18				7.0
BGGL−39 −E41	1170×1170×65		39	157			10.0
BGGL−29 −E41	720 ×1470×65		29				9.0
BGGL−18 −E41	570 ×1170×65		18				6.0
BGGL−27 −E25	1170×1170×50	0.35	27				7.5
BGGL−21 −E25	720 ×1470×50		20.5				6.5
BGGL−13 −E25	570 ×1170×50		12.5				4.5
BGMML−39 −E38	1170×1170×98	0.5	39	118		99.9995 at 0.1-0.2 μm	12.5
BGMML−29 −E38	720 ×1470×98		29.5				11.0
BGMML−18 −E38	570 ×1170×98		18				7.5
BGMML−39 −E23	1170×1170×75		39	127			11.0
BGMML−29 −E23	720 ×1470×75		29				10.0
BGMML−18 −E23	570 ×1170×75		18				7.0
BGMML−39 −E41	1170×1170×65		39	147			10.0
BGMML−29 −E41	720 ×1470×65		29				9.0
BGMML−18 −E41	570 ×1170×65		18				6.0
BGMML−27 −E25	1170×1170×50	0.35	27				7.5
BGMML−21 −E25	720 ×1470×50		20.5				6.5
BGMML−13 −E25	570×1170×50		12.5				4.5
BGML−39 −E38	1170×1170×98	0.5	39	84		99.99 at 0.3 μm	12.5
BGML−29 −E38	720 ×1470×98		29.5				11.0
BGML−18 −E38	570 ×1170×98		18				7.5
BGML−39 −E23	1170×1170×75		39	88			11.0
BGML−29 −E23	720 ×1470×75		29				10.0
BGML−18 −E23	570 ×1170×75		18				7.0
BGML−39 −E41	1170×1170×65		39	98			10.0
BGML−29 −E41	720 ×1470×65		29				9.0
BGML−18 −E41	570 ×1170×65		18				6.0
BGML−39 −E25	1170×1170×50		39	127			7.5
BGML−29 −E25	720 ×1470×50		29				6.5
BGML−18 −E25	570 ×1170×50		18				4.5

All model is approved by FM standard.

Dimension available

H (mm)	W (mm)
150～1220	150～1500

Faceguard should be on downstream side for reinforcement when filter height is between 916mm and 1220mm.

Type of Filter	Filter media	Outgas Boron	Outgas Organic gas
Standard(Glass fiber media)	Glass fiber	1	1
Low Organic(Neuec filter)	Low Organic fiber	1	1/500
Low Boron(Low boron filter)	Low Boron glass fiber	1/100	1/2
Low Outgas(Nouvelle filter)	Low Boron/ Organic glass fiber	1/100	1/500
Boron-free filter(Boron-free filter)	PTFE	0	1/2

Boron free U-ULPA filter
(Boron less U-ULPA filter)

Model number

BFGL－□－E□□

- Add "Z" for special model
- Frame Type　E 38：D 98mm, E 41：D 65mm, E 25：D 50mm
- Shows dimension：See Standard spec.　("Z" stands for special spec.)

Standard specification

Model	Dimension (mm) H×W×D	Face Velocity (m/s)	Rated Capacity (m³/min)	Pressure Drop (Pa) Initial	Pressure Drop (Pa) Final	Collection Efficiency (%)	Weight (kg)
BFGL－29 －E38	720 ×1470×98	0.5	29.5	83	294	99.99995 at 0.1-0.2 μm	11.0
BFGL－18 －E38	570 ×1170×98		18				7.5
BFGL－29 －E41	720 ×1470×65		29	95			9.0
BFGL－18 －E41	570 ×1170×65		18				6.0
BFGL－21 －E25	720 ×1470×50	0.35	20.5				6.5
BFGL－13 －E25	570 ×1170×50		12.5				4.5

All model is approved by FM standard.UL approved model is available with special material. (UL900 Class1, Class2)Class1 "BFGL-Z-E※U2 (t98、Media depth≦58)"Class2 "BFGL-Z-E38Z (t98)"

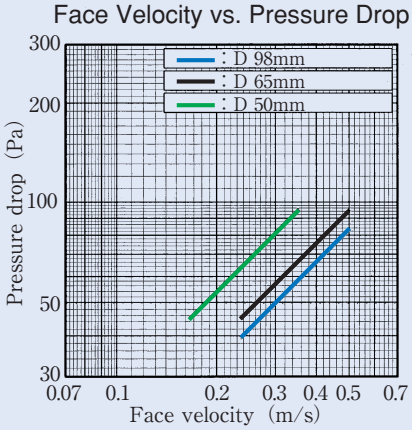
Dimension available

H (mm)	W (mm)
150～870	150～1500

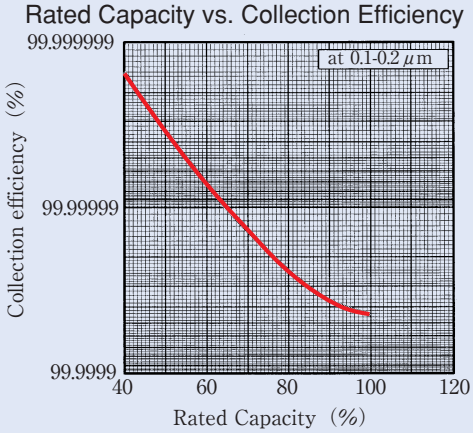
Type of Filter	Filter media	Outgas Boron	Outgas Organic gas
Standard(Glass fiber media)	Glass fiber	1	1
Low Organic(Neuec filter)	Low Organic fiber	1	1/500
Low Boron(Low boron filter)	Low Boron glass fiber	1/100	1/2
Low Outgas(Nouvelle filter)	Low Boron/ Organic glass fiber	1/100	1/500
Boron-free filter(Boron-free filter)	PTFE	0	1/2

Specification

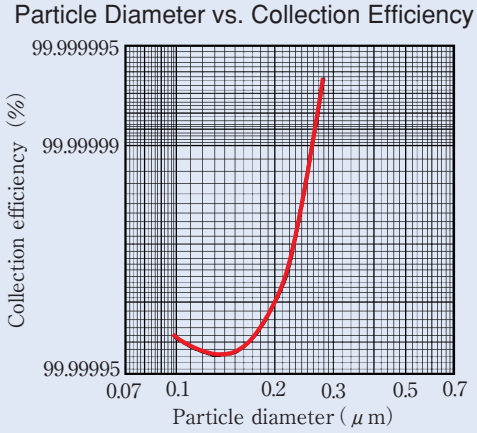
Face Velocity vs. Pressure Drop



Rated Capacity vs. Collection Efficiency



Particle Diameter vs. Collection Efficiency



1. 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.

2. In storage

(1) Do not place the carton directory on a floor. Use pallet to take space.

(2) Store carton box at well-ventilated warehouse with temperature between 0 to 40 degrees and humidity between 30 to 90%, Avoid direct sunlight and water stained.

(3) Load carton box vertically only. Up to 3 cartons can be put upon.

(4) Store carton box as originally packed. Repack filter with PE bag tightly sealed when carton is unpacked.

(5) Check filter's quality before use if carton has been stored for more than 1 year.

3. In installation

(1) To decrease damage to filter, pull carton box upward as instructed (shown on the figure).

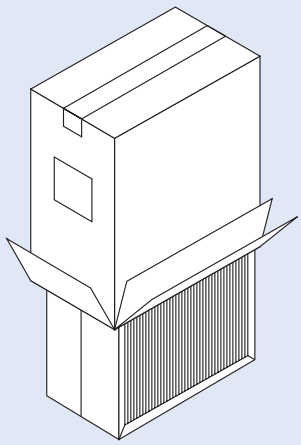
(2) In order not to damage filter media, hold frame only to handle filter.

(3) Never step on filter.

(4) Never sit and stand on filter as it is easily damaged.

(5) Install filter with direction as noticed on the lavel.

(6) Install filter by tightening evenly with gasket to be about 2/3 of its original depth. Do not remove filter once installed until replacement to avoid leakage caused by damage on gaskets.



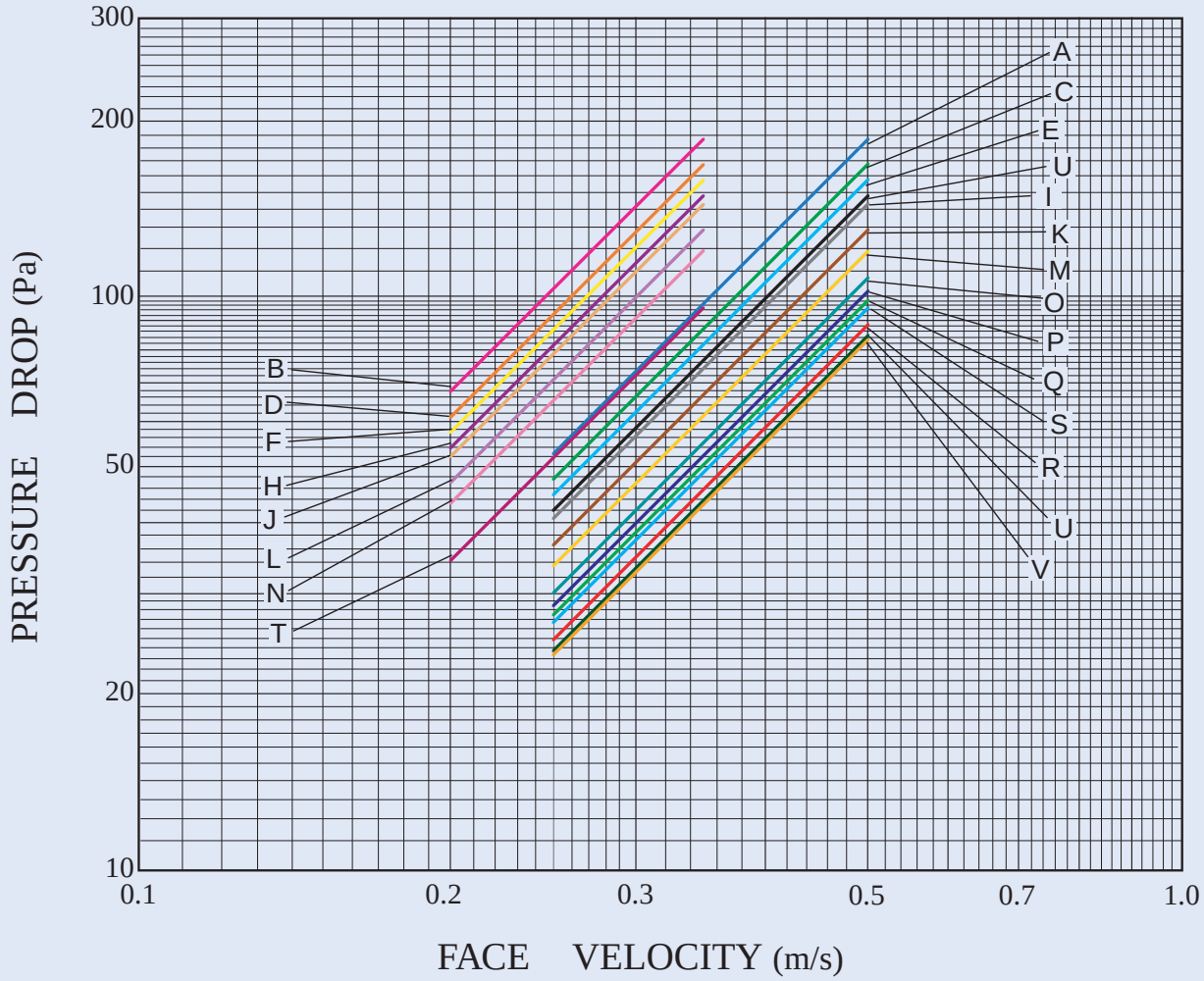
4. In use

(1) Idle once upon installation.

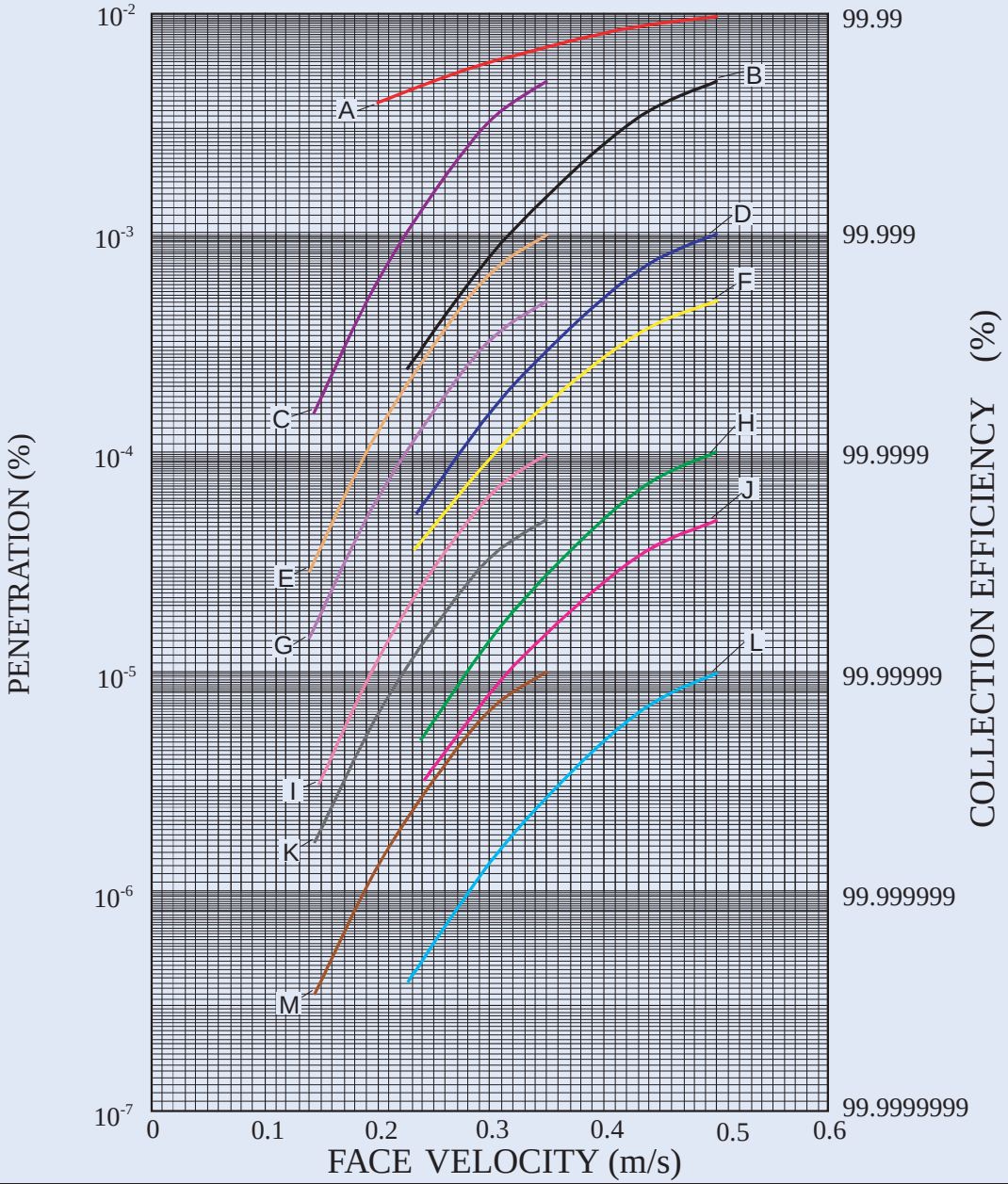
(2) Turn on/off airflow gradually. Do not turn airflow on/off suddenly.

(3) Keep initial pressure drop record.

(4) Remove the PE sheet on the face before fun running.



No	Line Color	Standard	Low-Outgas	Low-Organic	Low-Boron	PRESSURE DROP(Pa)	
						0.5m/s	0.35m/s
A		MMDL65t				187	—
B		MMDL50t				—	187
C		MMDL75t, MMGL65t				167	—
D		MMGL50t				—	167
E			TGGL65t	YGGL65t	BGGL65t	157	—
F			TGGL50t	YGGL50t	BGGL50t	—	157
G		MMDL98t, MMGL75t ATML50t	TGGL75t, TGMML65t, TGML50t	YGGL75t, YGMML65t, YGML50t	BGGL75t, BGMML65t, BGML50t	147	—
H			TGMML50t	YGMML50t	BGMML50t	—	147
I		MMZL65t				143	—
J		MMZL50t				—	143
K		MMGL98t, ATMML65t	TGGL98t, TGMML75t	YGGL98t, YGMML75t	BGGL98t, BGMML75t	128	—
L		ATMML50t				—	128
M		MMZL75t, MMTL65t	TGMML98t	YGMML98t	BGMML98t	118	—
N		MMTL50t				—	118
O		MMZL98t, ATMML75t				108	—
P		ATMML98t, MMTL75t				103	—
Q		MMTL98t, ATML65t	TGML65t	YGML65t	BGML65t	98	—
R		ATML75t	TGML75t	YGML75t	BGML75t	88	—
S		BFGL65t（PTFE）				95	—
T		BFGL50t（PTFE）				—	95
U		ATML98t	TGML98t	YGML98t	BGML98t	84	—
V		BFGL98t（PTFE）				83	—



No	Line Color	Standard	Low-Outgas	Low-Organic	Low-Boron	COLLECTION EFFICIENCY (%)	
						0.5m/s	0.35m/s
A		ATML98t, ATML75t ATML65t ATML50t	TGML98t, TGML75t, TGML65t TGML50t	YGML98t, YGML75t, YGML65t YGML50t	BGML98t, BGML75t, BGML65t BGML50t	99.99	—
B		MMTL65t				99.995	—
C		MMTL50t					99.995
D		ATMML65t, MMTL98t MMTL75t				99.999	—
E		ATMML50t					99.999
F		ATMML98t, ATMML75t	TGMML98t, TGMML75t, TGMML65t	YGMML98t, YGMML75t, YGMML65t	BGMML98t, BGMML75t, BGMML65t	99.9995	
G			TGMML50t	YGMML50t	BGMML50t		99.9995
H		MMZL98t, MMZL75t MMZL65t				99.9999	
I		MMZL50t					99.9999
J		BFGL98t, BFGL65t MMGL98t, MMGL75t MMGL65t	TGGL98t, TGGL75t, TGGL65t	YGGL98t, YGGL75t, YGGL65t	BGGL98t, BGGL75t, BGGL65t	99.99995	
K		BFGL50t, MMGL50t	TGGL50t	YGGL50t	BGGL50t		99.99995
L		MMDL98t, MMDL75t MMDL65t				99.99999	
M		MMDL50t					99.99999

Target particle is 0.3 μm for No.A

MEMO

MEMO

This catalog is subject to change without any prior notice.

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2007・10・2000(耕)