

Water Separator/Oil Mist Separators/ Odor Removal Filter

Series AM□

	Series	Moisture eliminating degree	Filtration	Outlet side density of oil mist	Smell	Page
Water Separator Water separator Eliminates water droplets in the compressed air.	Series AMG	99%	—	—	Oil smell	14-20-3
Oil Mist Separators	Series AFF Main line filter Eliminates impure particles such as oil and foreign objects, etc. in compressed air.	—	3 μm (95% capture of the particle diameter) Degree of quality 3 ^{Note)}	—	Oil smell	14-20-9
	Series AM Mist separator Eliminates oil mist in compressed air or rust sized 0.3 μm or more, and solid foreign objects such as carbon.		0.3 μm (95% capture of the particle diameter) Degree of quality 2	1 mg/m ³ (ANR) (≒0.8 ppm) Degree of quality 3 ^{Note)}		14-20-16
	Series AMD Micro mist separator Eliminates foreign particles sized 0.01 μm or more, or oil particles in aerosol state.		0.01 μm (95% capture of the particle diameter) Degree of quality 1	0.1 mg/m ³ (ANR) (≒0.08 ppm) Degree of quality 2		14-20-22
	Series AMH Micro mist separator with prefilter It's an oil separator, which incorporates prefilter (equivalent to AM) into micro mist separator.		0.3 + 0.01 μm (95% capture of the particle diameter) Degree of quality 1	—		14-20-30
	Series AME Super mist separator Captures foreign particles sized 0.01 μm or more and suction oil particles in an aerosol state.		0.01 μm (95% capture of the particle diameter) Degree of quality 1	0.01 mg/m ³ (ANR) (≒0.008 ppm) Degree of quality 1		Some oil odor
Deodorizer Odor removal filter Eliminates odor from compressed air.	Series AMF	—	0.01 μm (95% capture of the particle diameter) Degree of quality 1	0.04 mg/m ³ (ANR) (≒0.0032 ppm) Degree of quality 1	Non oil odor	14-20-42
Made to Order	With pressure differential gauge It's possible to control product's life cycles by watching the degree of a clogging element. Auto-drain type, drain guide specifications With auto-drain, drain piping is possible.		With IN-OUT flange Connection with the flange piping is possible. Medium pressure specifications Max. operating pressure 1.4 MPa	With pressure differential gauge, IN-OUT Flange Connection of the flange piping and confirming a clogged element is possible. White vaseline specifications Using white Vaseline for the lubricant.	HA□ AT ID□ AMG AFF AM□ Misc.	14-20-55
Special Specifications	Clean Series Usable inside clean room.		Copper-free Eliminates the effect of copper ion or fluoric resin, etc. for a color CRT.			14-20-58
How to Order Bowl Assembly						14-20-59
Precautions						14-20-62
Information on Items to be Discontinued and Equivalent Products						14-20-64
Related Products	Auto-Drain Valve, Motor Operated Auto-drain, Heavy Duty Auto-Drain, Pressure Differential Gauge					14-20-49

Note) It describes the degree of compressed air quality based on ISO8573-1: 1991 and JIS B 8392-1: 2000.



Water Separator Series AMG

The AMG series water separator is installed on the air pressure line to remove water drops in the compressed air. It is suitable for use in cases where “water must be removed, but the air does not have to be as dry as when an air dryer is used” or “an air dryer cannot be used because an electric power supply is not available”.

Through the adoption of an element that is used exclusively for removing water drops and the provision of ample housing interior space, a 99%* water removal rate** has been achieved.

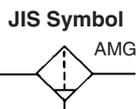
⚠ Caution

Water separator can remove water droplets, but it cannot remove moisture.

- *Condition of inlet air
 - Pressure: 0.7 MPa
 - Temperature: 25°C
 - Relative humidity: 100%
- Liquid water content (Water droplet content): 1.5 g/m³ (ANR)
- Compressed air flow: Rated flow of each model
- **Removed rate of water (%) =

$$\frac{\text{Removed water (Water droplet) (g)}}{\text{Inflowed water (Water droplet) (g)}} \times 100$$

Various equipment for drain discharge



Made to Order Made to Order Specifications (For details, refer to page 14-20-55.)

⚠ Caution

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, pages 14-14-6 to 8 for Precautions on every series, and pages 14-20-62 to 64 for more detailed precautions on every series.

Model

Model	AMG150	AMG250	AMG350	AMG450	AMG550	AMG650	AMG850
Rated flow (ℓ/min (ANR)) <small>Note</small>	300	750	1500	2200	3500	6000	12000
Port size (Nominal size B)	1/8, 1/4, 3/8	1/4, 3/8, 1/2	3/8, 1/2, 3/4	1/2, 3/4, 1	3/4, 1	1, 1 1/2	1 1/2, 2
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5

Note Max. flow capacity at a pressure of 0.7 MPa. Max. flow varies depending on operating pressure. Refer to page 14-20-4 for flow rate and page 14-20-4 for the max. flow line graph.

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa
Min. operating pressure *	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Removed rate of water	99%
Element life	2 years or when pressure drop reaches 0.1 MPa

* 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type) in the case of types with auto-drain.

Refer to “Made to Order Specifications” on page 14-20-55.

Accessory (Option)

Applicable model	AMG150	AMG250	AMG350	AMG450	AMG550	AMG650	AMG850
Bracket assembly (With cap bolt and spring washer)	BM51	BM52	BM53	BM54	BM55	BM56	BM57

How to Order

AMG 250 03 B J

Body size

150	1/8 Standard
250	1/4 Standard
350	3/8 Standard
450	1/2 Standard
550	3/4 Standard
650	1 Standard
850	1 1/2 Standard

Thread type

Nil	Rc
F	G
N	NPT

Port size

01	1/8 ^B	06	3/4 ^B
02	1/4 ^B	10	1 ^B
03	3/8 ^B	14	1 1/2 ^B
04	1/2 ^B	20	2 ^B

Option *

J	Drain guide 1/4 ^B female thread
R	IN-OUT reversal direction

Note Element service indicator (symbol: T) is not available as an option because water deposits inside the indicator will lead to malfunctions.

Accessory (Option) *

Symbol	Description
Nil	—
B	Bracket
C	N.C. auto-drain
D	N.O. auto-drain

* Refer to the table below for accessory/Option combinations.



Note Refer to “How to Order Bowl Assembly” on page 14-20-59.

Accessory/Option Combinations

○ Available □ Not available ○ Depends on model

Accessory (Option)	Accessory	Option specifications	Applicable model										
			C	D	J	R	AMG150	AMG250	AMG350	AMG450	AMG550	AMG650	AMG850
Accessory	N.C. auto-drain	C	○	○	○	○	○	○	○	○	○	○	○
	N.O. auto-drain	D	○	○	○	○	○	○	○	○	○	○	○
Option	Drain guide 1/4 B	-J	○	○	○	○	○	○	○	○	○	○	○
	IN-OUT reversal direction	-R	○	○	○	○	○	○	○	○	○	○	○

Series AMG

Flow Characteristics

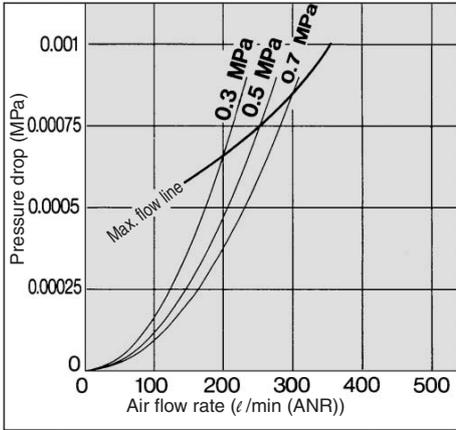
Element initial condition



Note) Compressed air over max. flow line in the table below may not meet the specifications of the product. It may cause damage to the element.

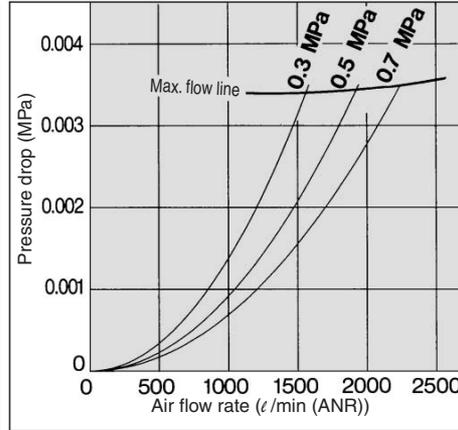
AMG150

$\frac{1}{8}$ " B



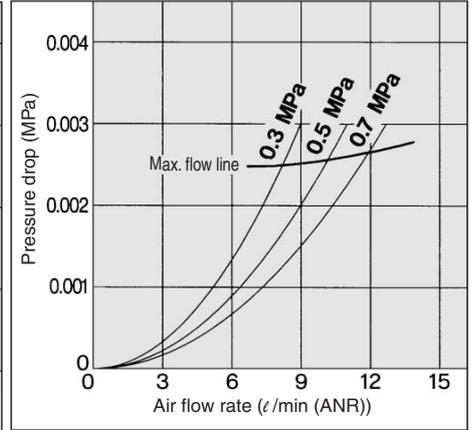
AMG450

$\frac{1}{2}$ " B



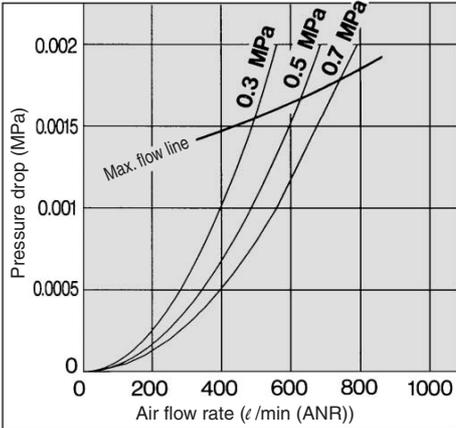
AMG850

$1\frac{1}{2}$ " B



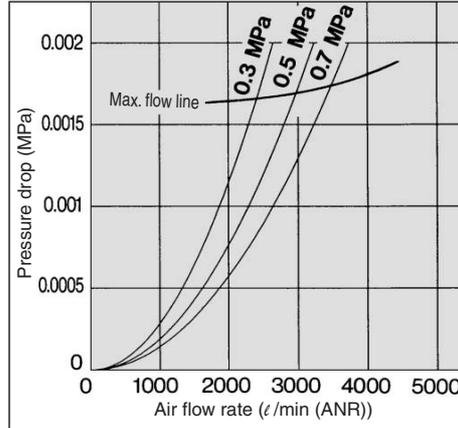
AMG250

$\frac{1}{4}$ " B



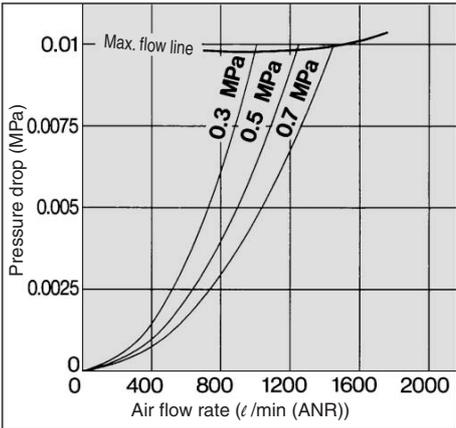
AMG550

$\frac{3}{4}$ " B



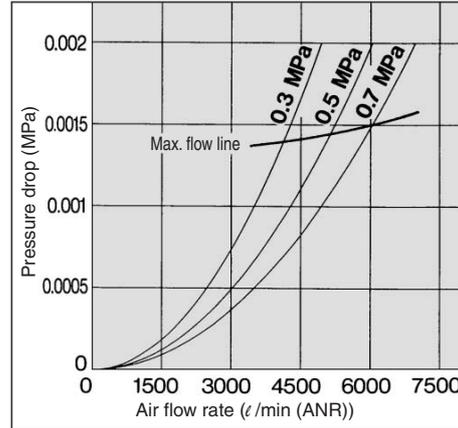
AMG350

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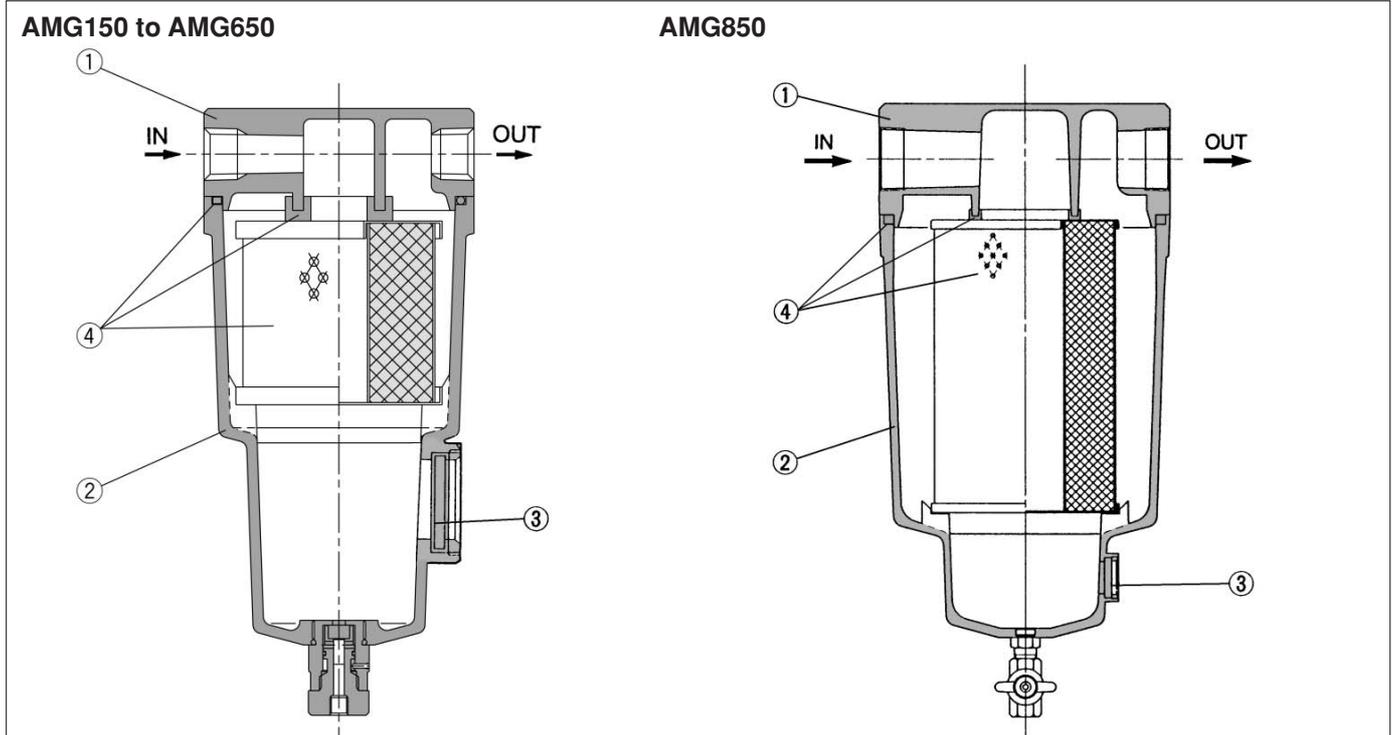


AMG650

1" B



Construction



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Chrome treated
②	Housing	Aluminum die-casted*	Epoxy coating on inner surface
③	Sight glass	Tempered glass	

* AMG850 is aluminum casted.



Note) Refer to page 14-20-59 for "How to Order Bowl Assembly".



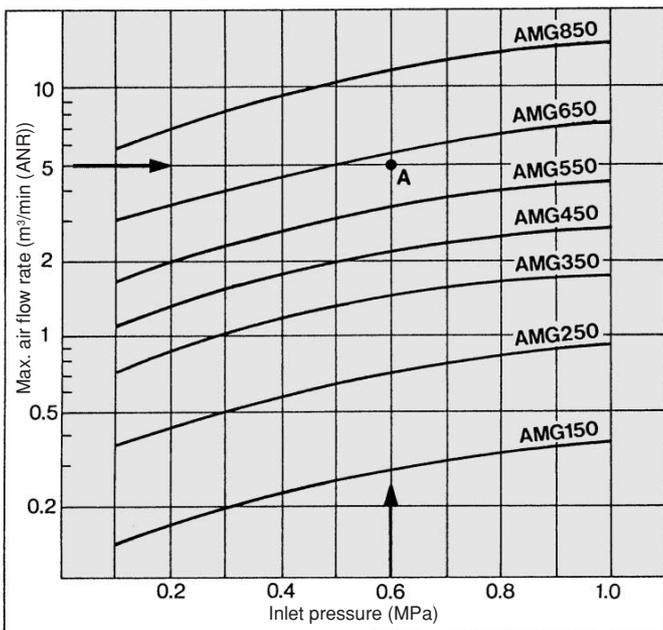
Note) Sight glass is indicated in the figure above for easy understanding of parts, however mounting position is different. Refer to dimensions on pages 14-20-6 to 7 for details.

Replacement Parts

No.	Description	Material	Model						
			AMG150	AMG250	AMG350	AMG450	AMG550	AMG650	AMG850
④	Element assembly	Resin Others	AMG-EL150	AMG-EL250	AMG-EL350	AMG-EL450	AMG-EL550	AMG-EL650	AMG-EL850

* Element assembly: With gasket and O-ring

Max. Air Flow



Model Selection

Select the model in accordance with the following procedure taking the inlet pressure and max. air flow into consideration.

(Example) Inlet pressure: 0.6 MPa

Maximum air flow rate: 5 m³/min (ANR)

1. Select the point of contact A of inlet pressure and max. air capacity in the graph.
2. AMG650 is obtained when the max. flow line is above the point of intersection A in the graph.



Note) Make sure to select a model that has the maximum flow rate line above the obtained intersecting point. With a model that has the maximum flow rate line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

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AMG

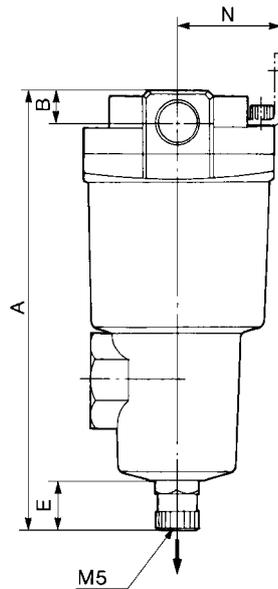
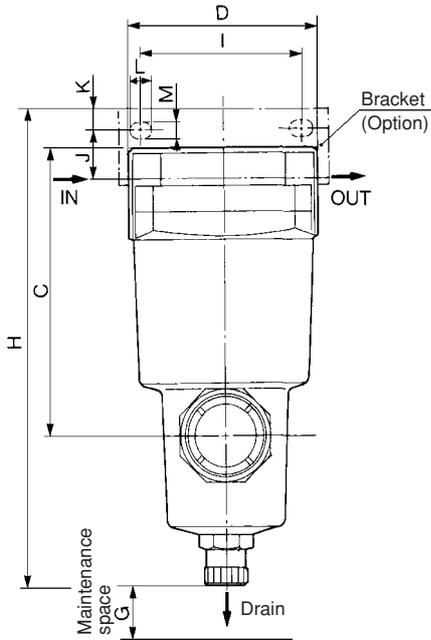
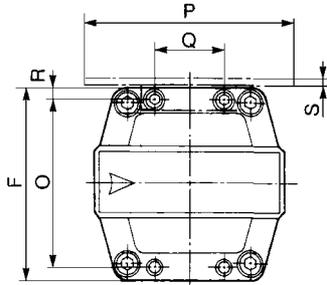
AFF

AM

Misc.

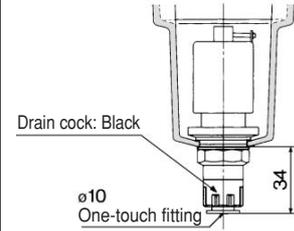
Series AMG

AMG150 to AMG650 Dimensions

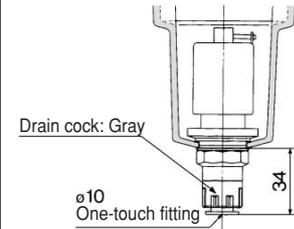


Accessory

D: With auto-drain (N.O.)



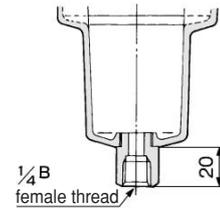
C: With auto-drain (N.C.)



* N.C. auto-drain not available for AMG650.

Option

J: With drain guide

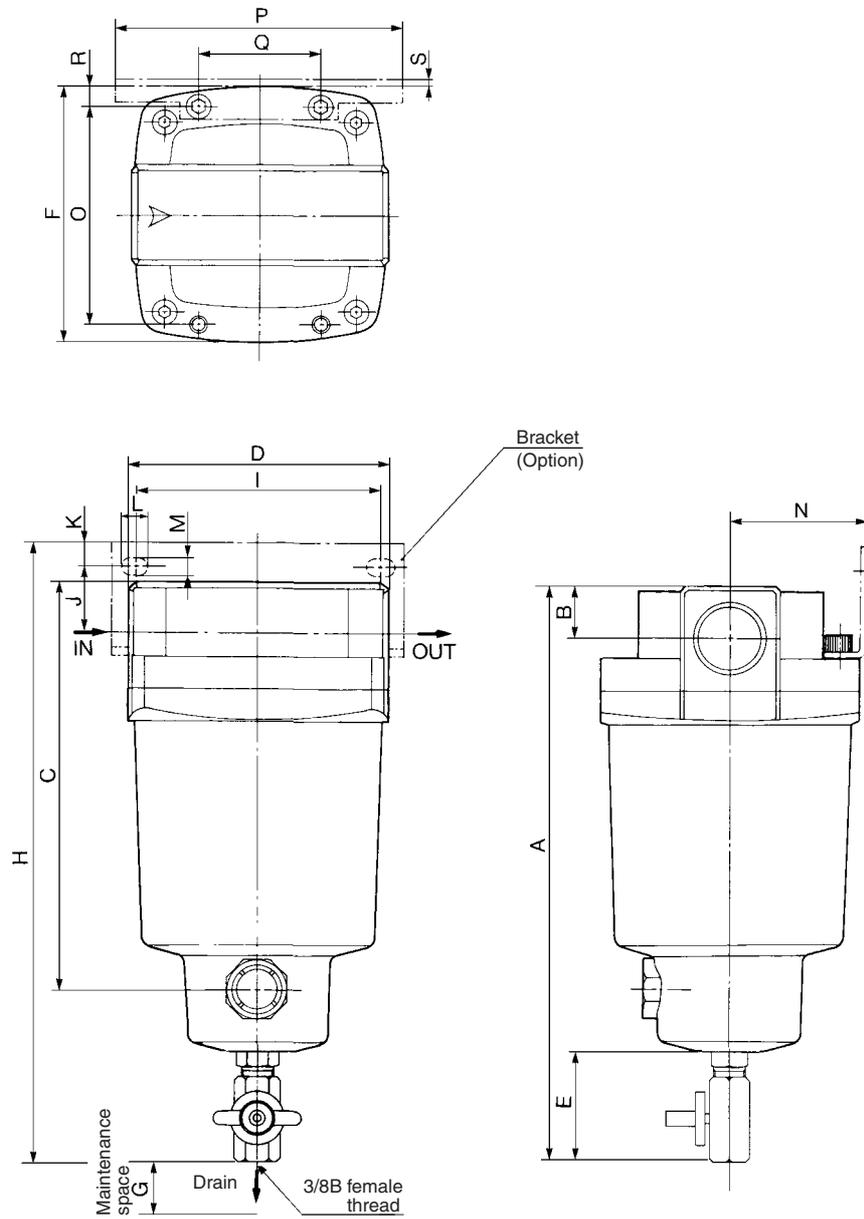
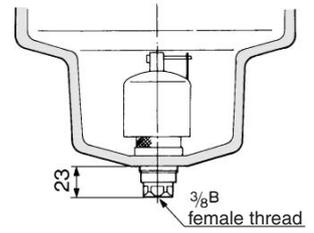


Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											
									H	I	J	K	L	M	N	O	P	Q	R	S
AMG150	1/8, 1/4, 3/8	159	13	100	63	20	63	10	166	56	15	5	9	5.5	35	54	70	26	4.5	1.6
	1/4, 3/8	172	13	113	76	20	76	10	187	66	20	8	12	6	40	66	84	28	5	2.0
AMG250	1/2	178	16	119	76	20	76	10	187	66	17	8	12	6	40	66	84	28	5	2.0
	3/8, 1/2	204	16	145	90	20	90	10	218	80	22	8	14	7	50	80	100	34	5	2.3
AMG350	3/4	210	19	151	90	20	90	10	218	80	19	8	14	7	50	80	100	34	5	2.3
	1/2, 3/4	225	19	166	106	20	106	10	241	90	25	10	14	9	55	88	110	50	9	3.2
AMG450	1	232	22	173	106	20	106	10	241	90	21	10	14	9	55	88	110	50	9	3.2
	3/4, 1	259	22	200	122	20	122	10	277	100	30	10	16	9	65	102	130	60	10	4.5
AMG650	1, 1 1/2	311	32	253	160	20	160	10	334	150	40	15	20	11	85	136	180	76	12	4.5

AMG850 Dimensions

Accessory

D: With auto-drain (N.O. type) for AMG850



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											
									H	I	J	K	L	M	N	O	P	Q	R	S
AMG850	1/2, 2	460.5	42	348	220	57.5	220	10	463.5	180	30	15	24	13	120	184	220	110	18	6.0

HA

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AMG

AFF

AM

Misc.



Main Line Filter

Series AFF

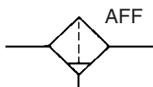
Series AFF is mounted to main piping to remove impurities like oil, water and foreign matter in compressed air. It improves the function of downward dryer, extends the life of precision filter, and prevents trouble with the equipment.



AFF□B

AFF□A

JIS Symbol



Caution

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, pages 14-14-6 to 8 for Precautions on every series, and pages 14-20-62 to 64 for more detailed precautions on every series.

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa
Min. operating pressure *	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration degree	3 μm (95% particle size collection)
Element life	2 years (1 year for A type) or when pressure drop reaches 0.1 MPa

* 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type) in the case of types with auto-drain.



Refer to "Made to Order Specifications" on pages 14-20-55 to 14-20-57.

Accessory (Option)/For AFF2B to AFF75B

Applicable model	AFF2B	AFF4B	AFF8B	AFF11B	AFF22B	AFF37B	AFF75B
Bracket assembly (With cap bolt and spring washer)	BM51	BM52	BM53	BM54	BM55	BM56	BM57

Accessory (Option)/For AFF75A to AFF220A

Applicable model	AFF75A	AFF125A	AFF150A	AFF220A
Auto drain (2 pcs. each)	AD402-03-2			
Pressure gauge (2 pcs. each)	G46-15-02			
Companion flange (2 pcs. each)	2 ^B JIS 10 ^K FF	3 ^B JIS 10 ^K FF	4 ^B JIS 10 ^K FF	
Anchor bolt (3 pcs. each)	AI-2S			

Model

Model	AFF2B	AFF4B	AFF8B	AFF11B	AFF22B	AFF37B	AFF75B	AFF75A	AFF125A	AFF150A	AFF220A
Rated flow ^{Note)} (l/min (ANR))	300	750	1500	2200	3500	6000	12000	12000	22000	28000	42000
Port size (Nominal size B)	1/8, 1/4, 3/8	1/4, 3/8, 1/2	3/8, 1/2, 3/4	1/2, 3/4, 1	3/4, 1	1, 1 1/2	1 1/2, 2	2 ^B flange	3 ^B flange	4 ^B flange	4 ^B flange
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5	50	52	72	87



Note) Max. flow is at 0.7 MPa. Max. flow varies depending on operating pressure. Refer to page 14-20-11 for flow characteristics and the graph below for max. air flow.

Model Selection

Select the model in accordance with the following procedure taking the inlet pressure and max. air flow into consideration.

(Example) Inlet pressure: 0.6 MPa

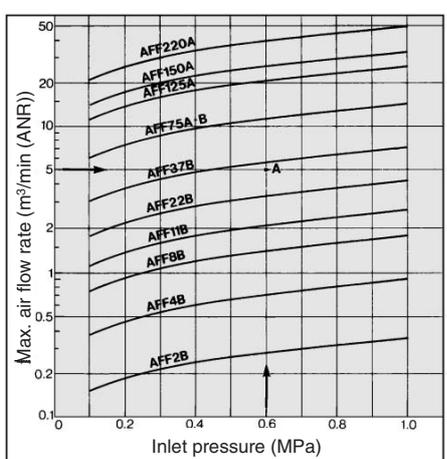
Max. air flow capacity: 5 m³/min (ANR)

- Select the point of contact A of inlet pressure and max. air capacity in the graph.
- To select one with the maximum air flow rate line that is located above the obtained intersection point A, the model will be AFF37B.



Note) Make sure to select a model that has the maximum flow rate line above the obtained intersecting point. With a model that has the maximum flow rate line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

Max. Air Flow



HA

AT

ID

AMG

AFF

AM

Misc.

Series AFF

How to Order

AFF2B to AFF75B

AFF 8B — **03** **B** — **J**

Body size

2B	1/8 Standard
4B	1/4 Standard
8B	3/8 Standard
11B	1/2 Standard
22B	3/4 Standard
37B	1 Standard
75B	1 1/2 Standard

Thread type

Nil	Rc
F	G
N	NPT

Port size

01	1/8 ^B	06	3/4 ^B
02	1/4 ^B	10	1 ^B
03	3/8 ^B	14	1 1/2 ^B
04	1/2 ^B	20	2 ^B

Accessory (Option) *

Symbol	Description
Nil	—
B	Bracket
C	N.C. auto-drain
D	N.O. auto-drain

Option *

J	Drain guide 1/4 ^B female thread
R	IN-OUT reversal direction
T	Element service indicator

* Refer to the table below for accessory/option combinations.

Note) Refer to page 14-20-59 for "How to Order Bowl Assembly".

Accessory/Option Combinations ○ Available ■ Not available ◯ Depends on model

Accessory (Option)	Accessory	Optional specification			Applicable model								
		C	D	J	R	T	AFF2B	AFF4B	AFF8B	AFF11B	AFF22B	AFF37B	AFF75B
Accessory	N.C. auto-drain	C	○	○	○	○	○	○	○	○	○	○	○
	N.O. auto-drain	D	○	○	○	○	○	○	○	○	○	○	○
Option	Drain guide 1/4 B	-J	○	○	○	○	○	○	○	○	○	○	○
	IN-OUT reversal direction	-R	○	○	○	○	○	○	○	○	○	○	○
	Element service indicator	-T	○	○	○	○	○	○	○	○	○	○	○

AFF75A to AFF220A

AFF 75A — **20** **D**

Basic size
(Applicable compressor rating)

75A	75 kW
125A	110 to 125 kW
150A	150 kW
220A	180 to 220 kW

Accessory (Option)

D	Auto-drain
G	Pressure gauge
F	Companion flange
L	Anchor bolt

Port size

20	2 ^B JIS 10k flange
30	3 ^B JIS 10k flange
40	4 ^B JIS 10k flange

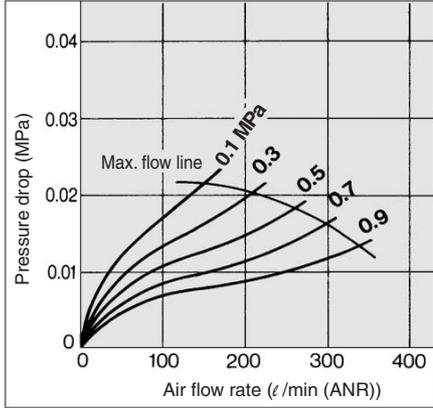
Main Line Filter Series AFF

Flow Characteristics/Select the model taking the max. flow capacity into consideration. Element oil saturation

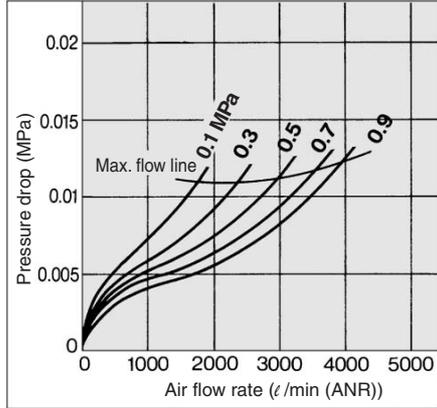


Note) Compressed air over max. flow line in the table below may not meet the specifications of the product. It may cause damage to the element.

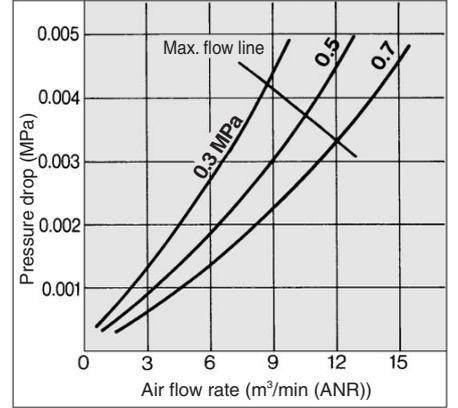
AFF2B 1/8B



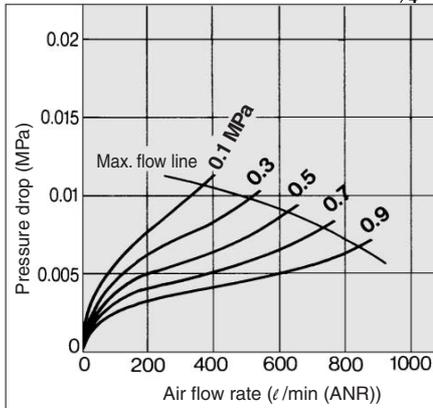
AFF22B 3/4B



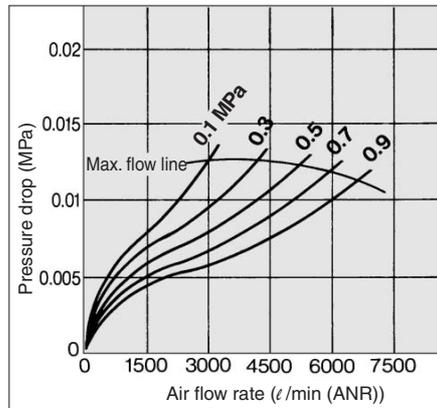
AFF75A 2B



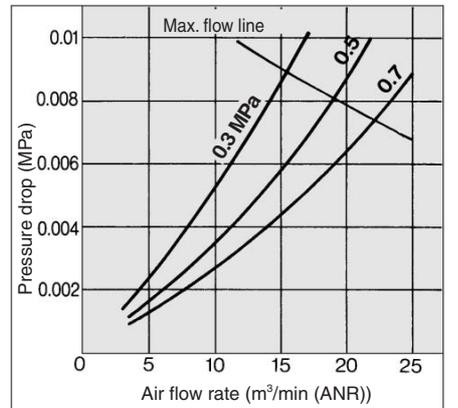
AFF4B 1/4B



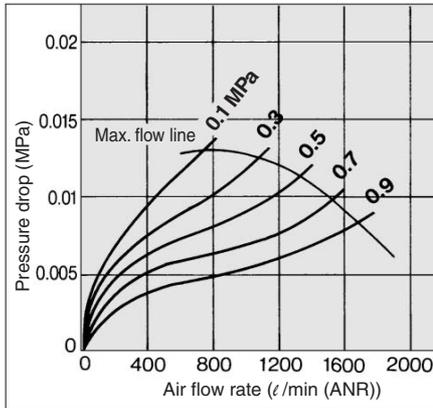
AFF37B 1B



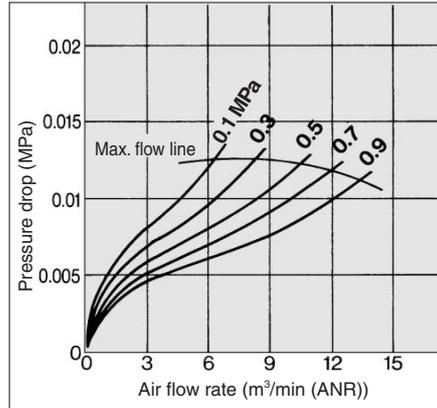
AFF125A 3B



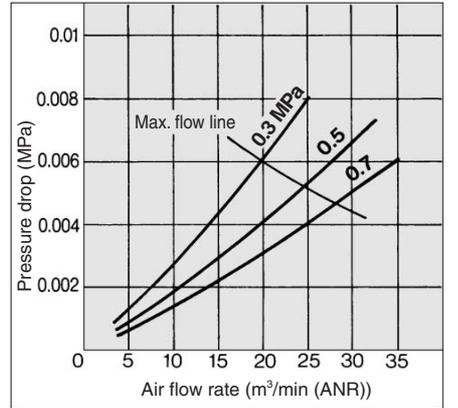
AFF8B 3/8B



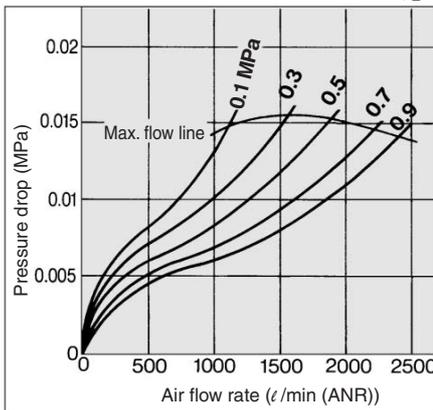
AFF75B 1 1/2B



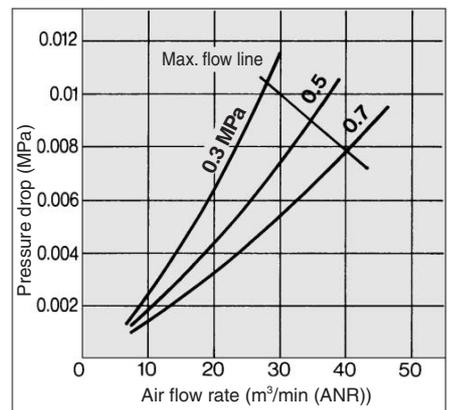
AFF150A 4B



AFF11B 1/2B



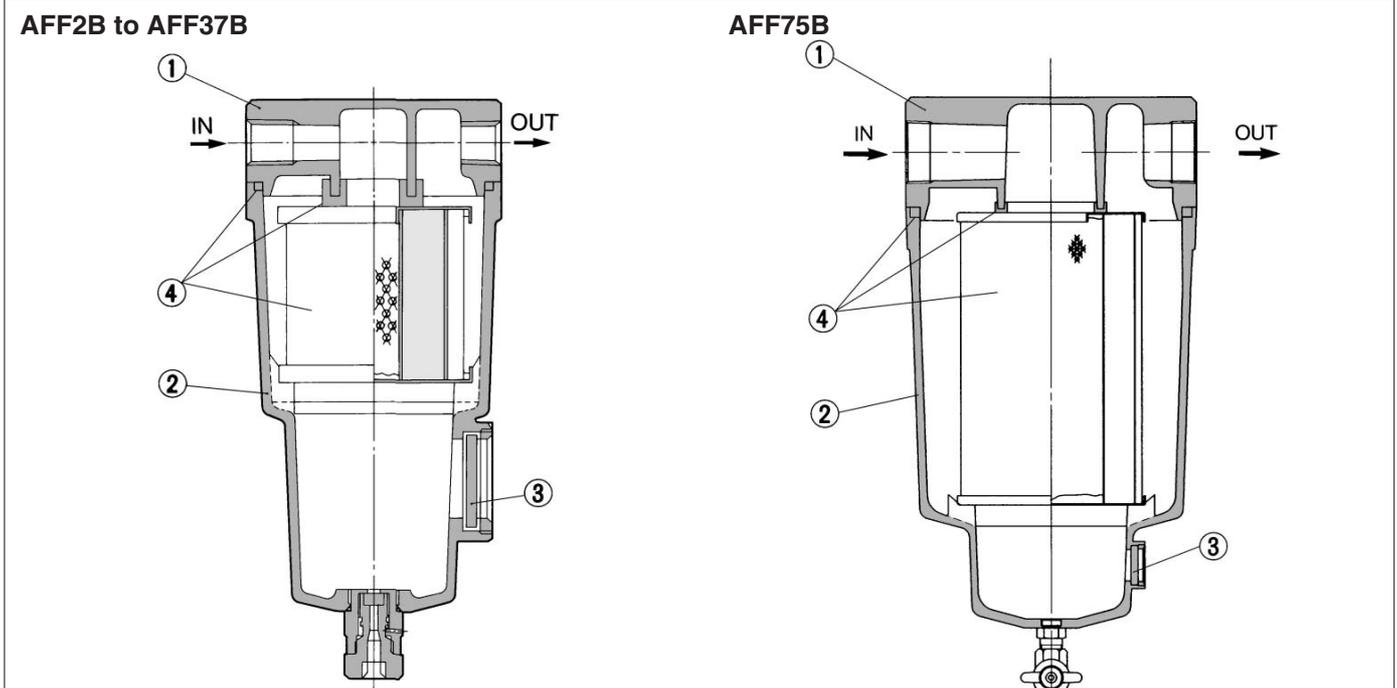
AFF220A 4B



- HA
- AT
- ID
- AMG
- AFF**
- AM
- Misc.

Series AFF

Construction



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Chrome treated
②	Housing	Aluminum die-casted*	Epoxy coating on inner surface
③	Sight glass	Tempered glass	

* AFF75B is aluminum casted.



Note) Refer to page 14-20-59 for "How to Order Bowl Assembly".

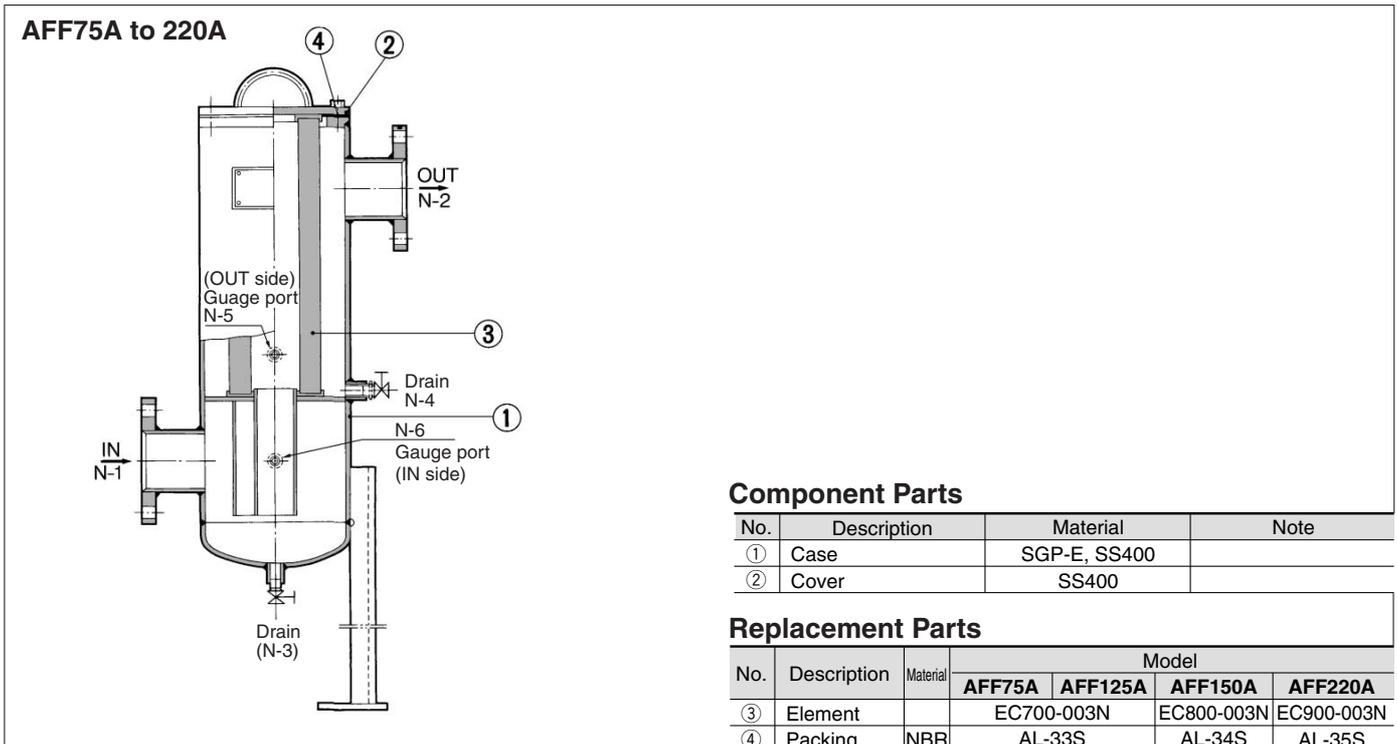


Note: Sight glass is indicated in the figure above for easy understanding of parts, however mounting position is different. Please refer to pages 14-20-13 to 14-20-14 for details.

Replacement Parts

No.	Description	Material	Model						
			AFF2B	AFF4B	AFF8B	AFF11B	AFF22B	AFF37B	AFF75B
④	Element assembly	Cotton paper, Others	AFF-EL2B	AFF-EL4B	AFF-EL8B	AFF-EL11B	AFF-EL22B	AFF-EL37B	AFF-EL75B

* Element assembly: With gasket and O-ring



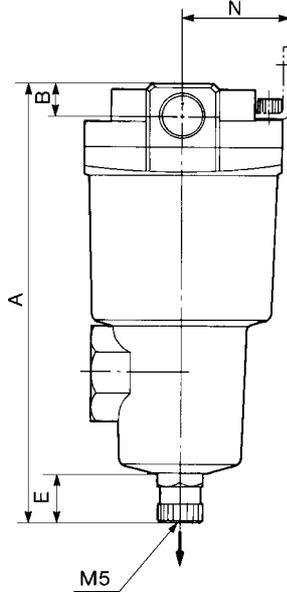
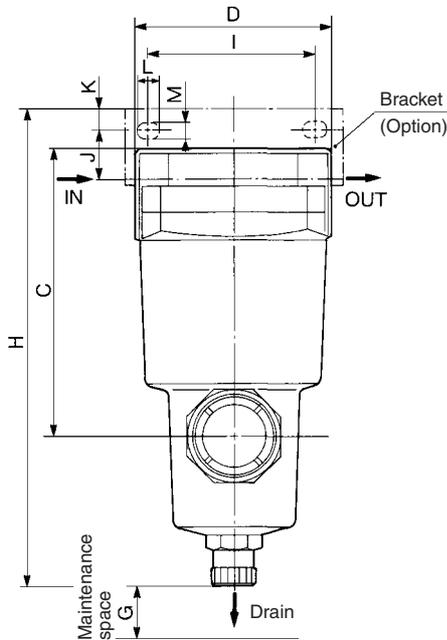
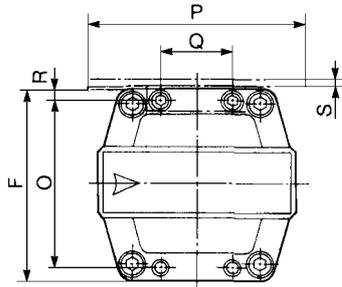
Component Parts

No.	Description	Material	Note
①	Case	SGP-E, SS400	
②	Cover	SS400	

Replacement Parts

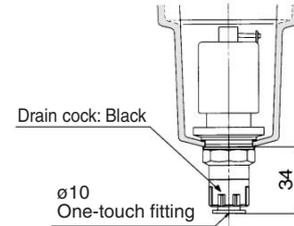
No.	Description	Material	Model		
			AFF75A	AFF125A	AFF150A
③	Element		EC700-003N	EC800-003N	EC900-003N
④	Packing	NBR	AL-33S	AL-34S	AL-35S

AFF2B to AFF37B Dimensions

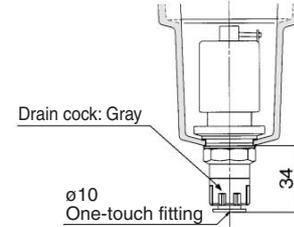


Accessory

D: With auto-drain (N.O.)



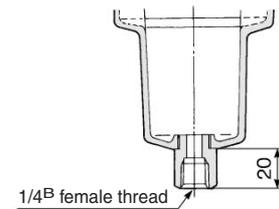
C: With auto-drain (N.C.)



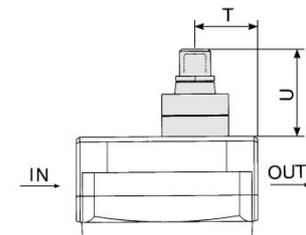
* N.C. auto-drain not available for AFF37B.

Option

J: With drain guide



T: With element service indicator



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											Element service indicator		
									H	I	J	K	L	M	N	O	P	Q	R	S	T	U
AFF2B	1/8, 1/4, 3/8	159	13	100	63	20	63	10	166	56	15	5	9	5.5	35	54	70	26	4.5	1.6	24	37
	1/4, 3/8	172	13	113	76	20	76	10	187	66	20	8	12	6	40	66	84	28	5	2.0	27	37
AFF4B	1/2	178	16	119	76	20	76	10	187	66	17	8	12	6	40	66	84	28	5	2.0	27	37
	3/8, 1/2	204	16	145	90	20	90	10	218	80	22	8	14	7	50	80	100	34	5	2.3	32	37
AFF8B	3/4	210	19	151	90	20	90	10	218	80	19	8	14	7	50	80	100	34	5	2.3	32	37
	1/2, 3/4	225	19	166	106	20	106	10	241	90	25	10	14	9	55	88	110	50	9	3.2	37	37
AFF11B	1	232	22	173	106	20	106	10	241	90	21	10	14	9	55	88	110	50	9	3.2	37	37
	3/4, 1	259	22	200	122	20	122	10	277	100	30	10	16	9	65	102	130	60	10	4.5	39	37
AFF22B	3/4, 1	259	22	200	122	20	122	10	277	100	30	10	16	9	65	102	130	60	10	4.5	39	37
AFF37B	1, 1 1/2	311	32	253	160	20	160	10	334	150	40	15	20	11	85	136	180	76	12	4.5	55	37

HA

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ID

AMG

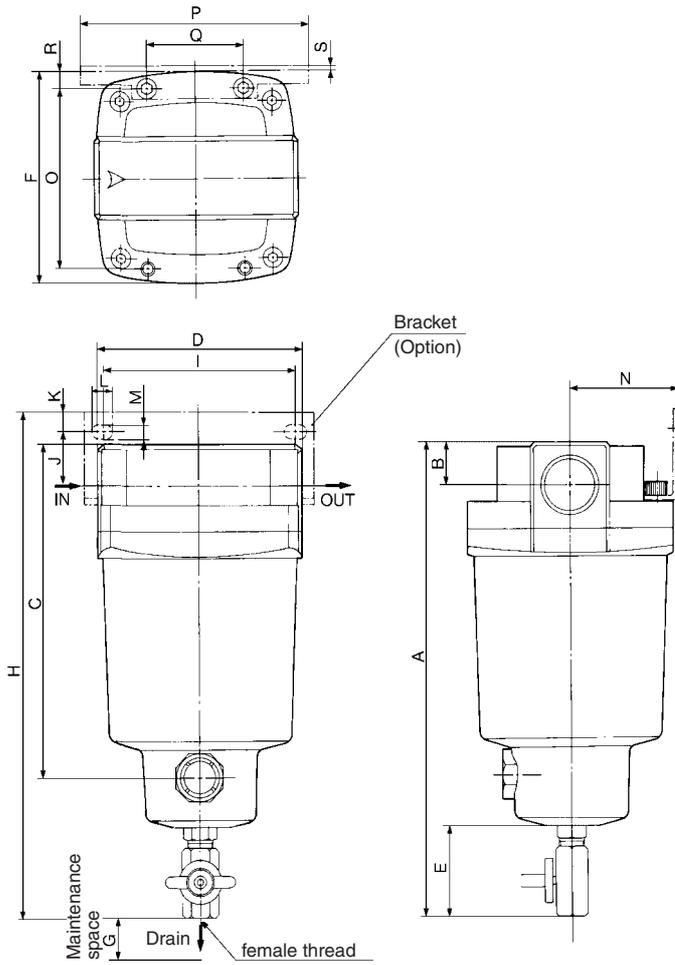
AFF

AM

Misc.

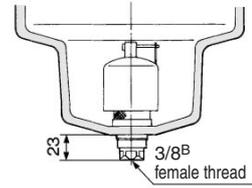
Series AFF

AFF75B Dimensions



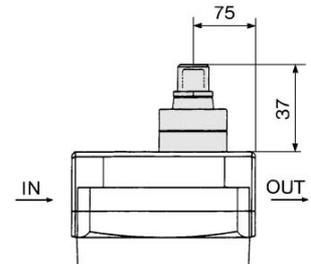
Accessory

D: With auto-drain (N.O.) for AFF75B



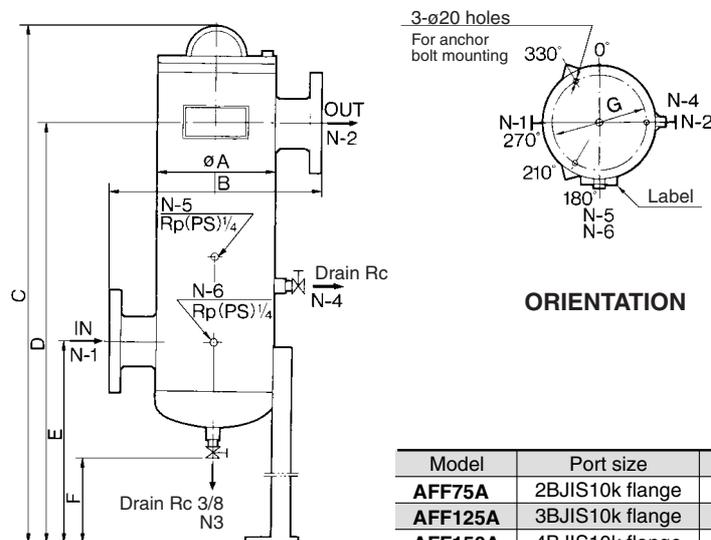
Option

T: With element service indicator



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											
									H	I	J	K	L	M	N	O	P	Q	R	S
AFF75B	1½, 2	460.5	42	348	220	57.5	220	10	463.5	180	30	15	24	13	120	184	220	110	18	6.0

AFF75A to AFF220A/Dimensions

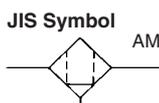


ORIENTATION

Model	Port size	øA	B	C	D	E	F	G
AFF75A	2BJIS10k flange	8 ^B	380	1125	935	505	265	184
AFF125A	3BJIS10k flange	8 ^B	380	1125	935	505	265	184
AFF150A	4BJIS10k flange	10 ^B	450	1178	980	540	265	236
AFF220A	4BJIS10k flange	12 ^B	500	1291	1070	670	325	282

Mist Separator Series AM

Series AM can separate and remove oil mist in compressed air which is difficult to remove by ordinary air filters and remove solid particles such as rust or carbon of more than 0.3 μm. It is the most suitable for air sources that drive pilot, metal seal solenoid valves.



Model

Model	AM150	AM250	AM350	AM450	AM550	AM650	AM850
Rated flow (ℓ/min (ANR)) ^{Note)}	300	750	1500	2200	3500	6000	12000
Port size (Nominal size B)	1/8, 1/4, 3/8	1/4, 3/8, 1/2	3/8, 1/2, 3/4	1/2, 3/4, 1	3/4, 1	1, 1 1/2	1 1/2, 2
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5



Note) Max. flow capacity at a pressure of 0.7 MPa. Max. flow varies depending on operating pressure. Refer to "Flow Characteristics" (page 14-20-17) and figure of "Max. Air Flow" (page 14-20-18).



Note) Refer to "Made to Order Specifications" on page 14-20-57 for large flow capacity type of AM850 or more.

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa
Min. operating pressure ⁽¹⁾	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration	0.3 μm (95% particle size collection)
Oil mist removal rate	Max. 1.0 mg/m ³ (ANR) (≒0.8 ppm) ⁽²⁾
Element life	2 years or when pressure drop reaches 0.1 MPa

Note 1) 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type) in the case of types with auto-drain.

Note 2) At oil mist density of 30 mg/m³ (ANR) is blown out by compressor

Refer to "Made to Order Specifications" on page 14-20-55.

Accessory (Option)

Applicable model	AM150	AM250	AM350	AM450	AM550	AM650	AM850
Bracket assembly (With cap bolt and spring washer)	BM51	BM52	BM53	BM54	BM55	BM56	BM57

Caution

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, pages 14-14-6 to 8 for Precautions on every series, and pages 14-20-62 to 64 for more detailed precautions on every series.

How to Order

AM 250 03 B J

Body size

150	1/8 Standard
250	1/4 Standard
350	3/8 Standard
450	1/2 Standard
550	3/4 Standard
650	1 Standard
850	1 1/2 Standard

Thread type

Nil	Rc
F	G
N	NPT

Port size

01	1/8 ^B	06	3/4 ^B
02	1/4 ^B	10	1 ^B
03	3/8 ^B	14	1 1/2 ^B
04	1/2 ^B	20	2 ^B

Option

J	Drain guide 1/4 ^B female thread
R	IN-OUT reversal direction
T	Element service indicator

Accessory (Option) *

Symbol	Description
Nil	—
B	Bracket
C	N.C. auto-drain
D	N.O. auto-drain

* Refer to the table below for accessory/Option combinations.



Note) Refer to "How to Order Bowl Assembly" on page 14-20-59.

Accessory/Option Combinations

○ Available ■ Not available ○ Depends on model

Accessory (Option)	Accessory	Option specifications				Applicable model								
		C	D	J	R	T	AM150	AM250	AM350	AM450	AM550	AM650	AM850	
Accessory	N.C. auto-drain	C												
	N.O. auto-drain	D												
Option	Drain guide 1/4 ^B	-J												
	IN-OUT reversal direction	-R												
	Element service indicator	-T												

Flow Characteristics

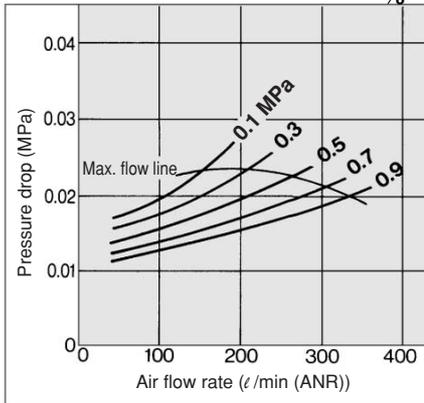
Element oil saturation



Note) Compressed air over max. flow line in the table below may not meet the specifications of the product. It may cause damage to the element.

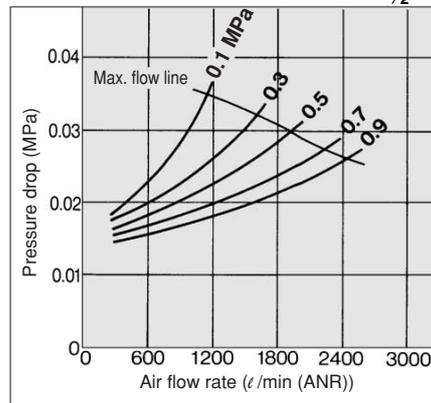
AM150

1/8^B



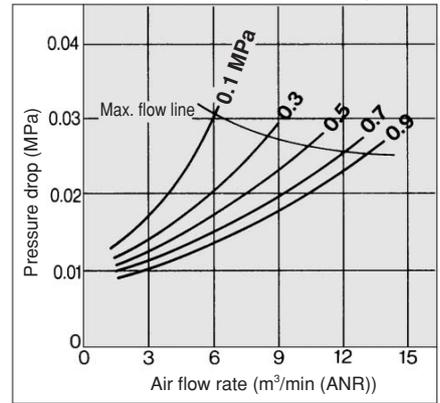
AM450

1/2^B



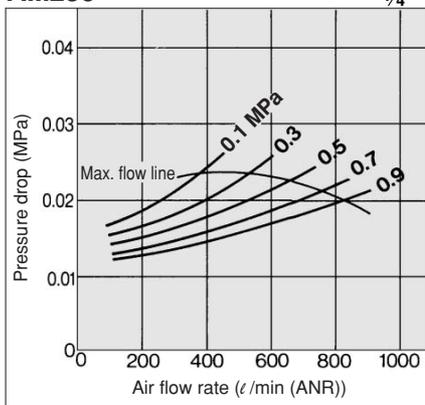
AM850

1 1/2^B



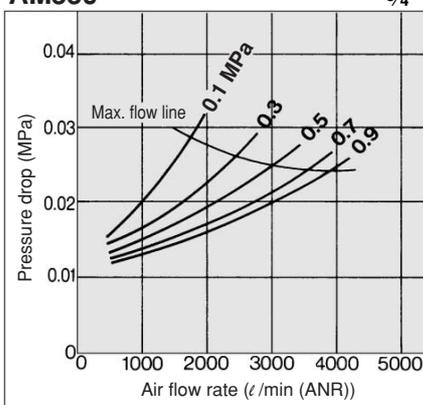
AM250

1/4^B

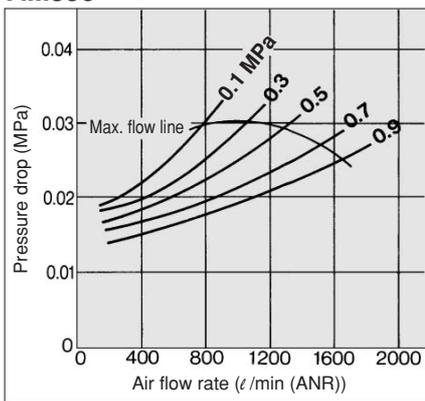


AM550

3/4^B

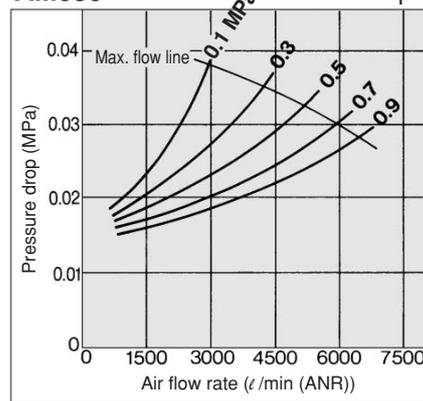


AM350



AM650

1^B



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AMG

AFF

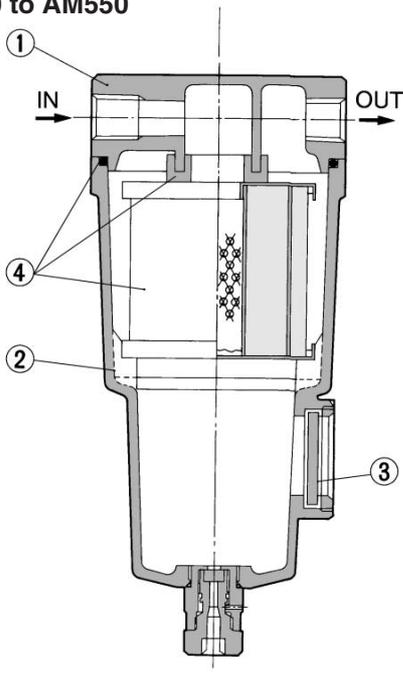
AM

Misc.

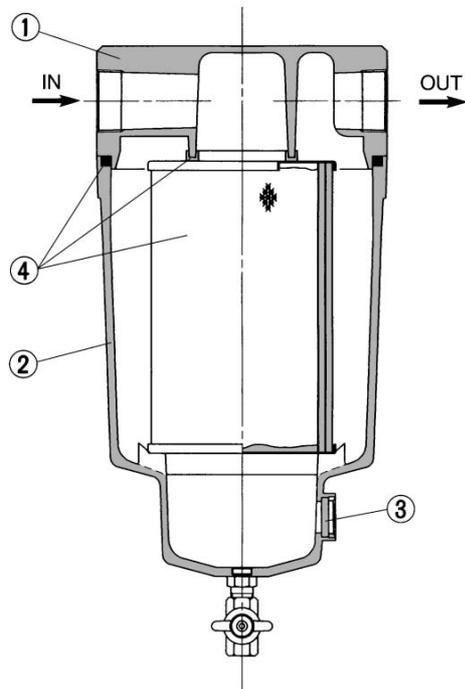
Series AM

Construction

AM150 to AM550



AM650 to AM850



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Chrome treated
②	Housing	Aluminum die-casted*	Epoxy coating on inner surface
③	Sight glass	Tempered glass	

* AM850 is aluminum casted.

Replacement Parts

No.	Description	Material	Model						
			AM150	AM250	AM350	AM450	AM550	AM650	AM850
④	Element assembly	Glass fiber, Others	AM-EL150	AM-EL250	AM-EL350	AM-EL450	AM-EL550	AM-EL650	AM-EL850

* Element assembly : With gasket and O-ring

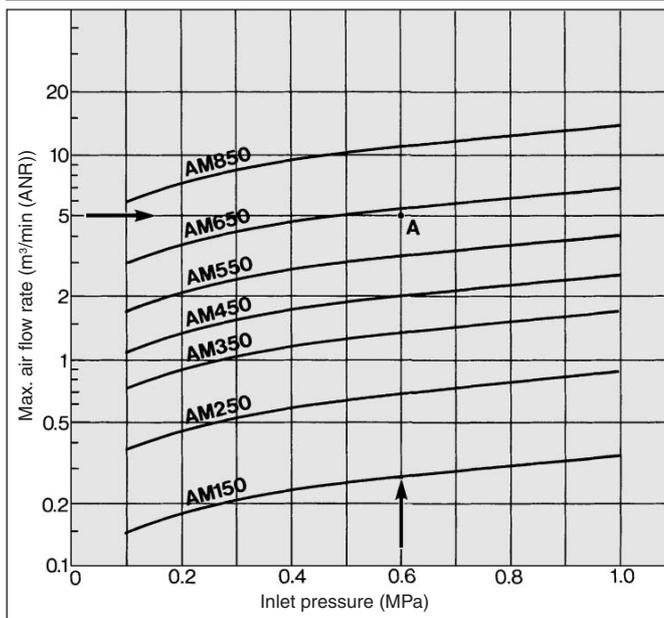


Note) Refer to page 14-20-59 for "How to Order Bowl Assembly".



Note) Sight glass is indicated in the figure above for easy understanding of parts, however mounting position is different. Refer to dimensions on pages 14-20-19 to 14-20-20 for details.

Max. Air Flow



Model Selection

Select the model in accordance with the following procedure taking the inlet pressure and max. air flow into consideration.

(Example) Inlet pressure: 0.6 MPa

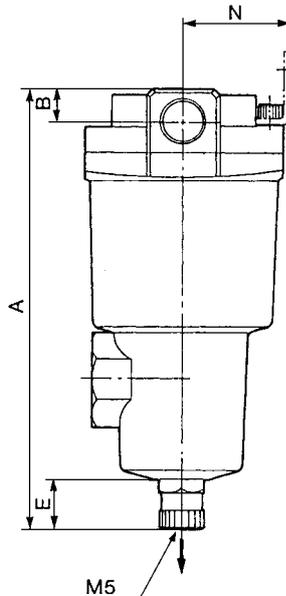
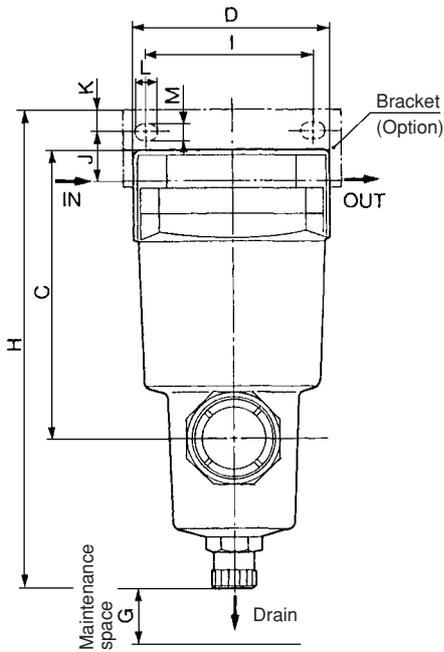
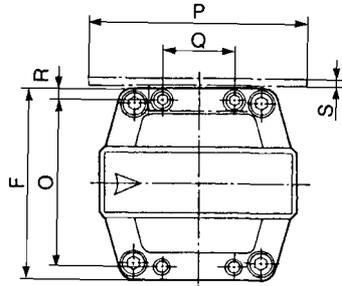
Max. air flow capacity: 5 m³/min (ANR)

1. Select the point of contact A of inlet pressure and max. air capacity in the graph.
2. AM650 is obtained when the max. flow line is above the point of intersection A in the graph.



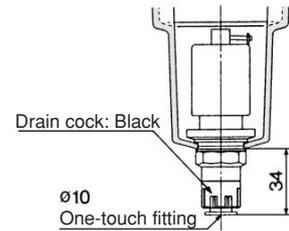
Note) Make sure to select a model that has the maximum flow rate line above the obtained intersecting point. With a model that has the maximum flow rate line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

AM150 to AM650 Dimensions

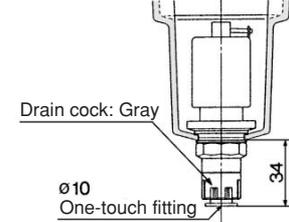


Accessory

D: With auto-drain (N.O.)



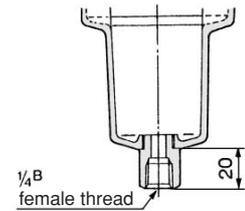
C: With auto-drain (N.C.)



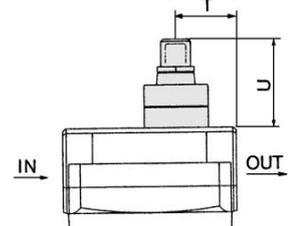
* N.C. auto-drain not available for AM650.

Option

J: With drain guide



T: With element service indicator



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											Element service indicator		
									H	I	J	K	L	M	N	O	P	Q	R	S	T	U
AM150	1/8, 1/4, 3/8	159	13	100	63	20	63	10	166	56	15	5	9	5.5	35	54	70	26	4.5	1.6	24	37
	1/4, 3/8	172	13	113	76	20	76	10	187	66	20	8	12	6	40	66	84	28	5	2.0	27	37
AM250	1/2	178	16	119	76	20	76	10	187	66	17	8	12	6	40	66	84	28	5	2.0	27	37
	3/8, 1/2	204	16	145	90	20	90	10	218	80	22	8	14	7	50	80	100	34	5	2.3	32	37
AM350	3/4	210	19	151	90	20	90	10	218	80	19	8	14	7	50	80	100	34	5	2.3	32	37
	1/2, 3/4	225	19	166	106	20	106	10	241	90	25	10	14	9	55	88	110	50	9	3.2	37	37
AM450	1	232	22	173	106	20	106	10	241	90	21	10	14	9	55	88	110	50	9	3.2	37	37
	3/4, 1	259	22	200	122	20	122	10	277	100	30	10	16	9	65	102	130	60	10	4.5	39	37
AM650	1, 1 1/2	311	32	253	160	20	160	10	334	150	40	15	20	11	85	136	180	76	12	4.5	55	37

HA

AT

ID

AMG

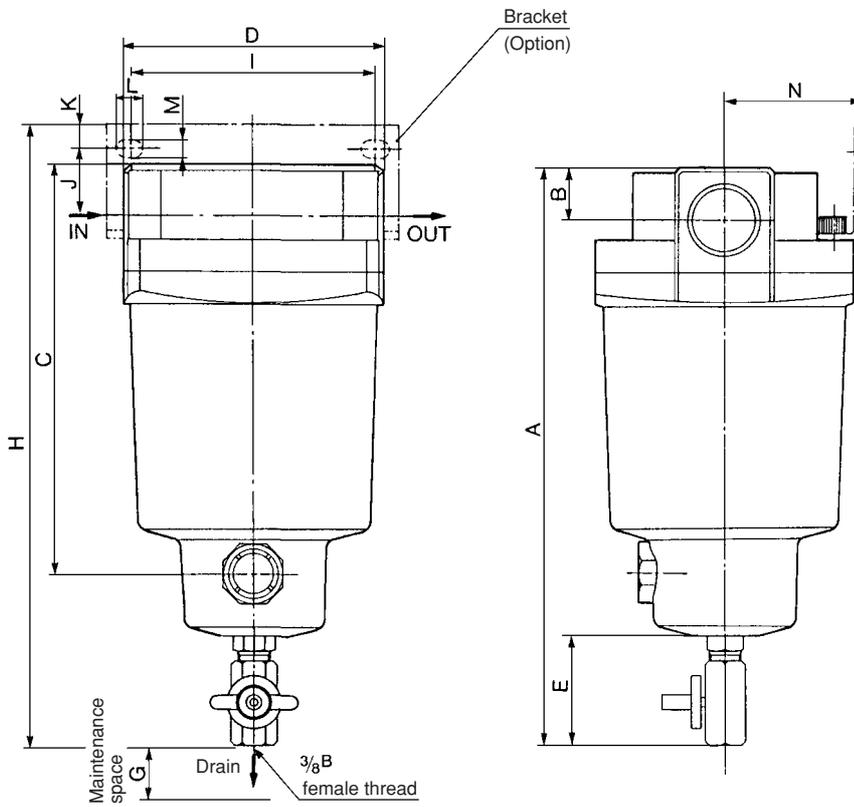
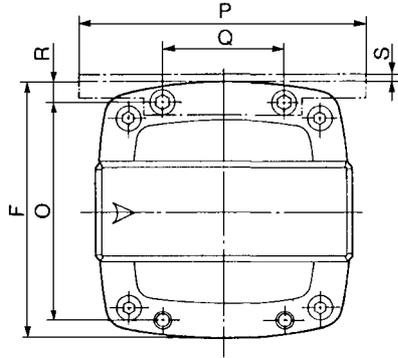
AFF

AM

Misc.

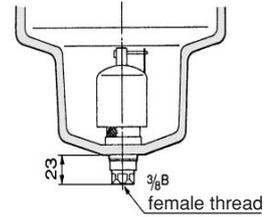
Series AM

AM850 Dimensions



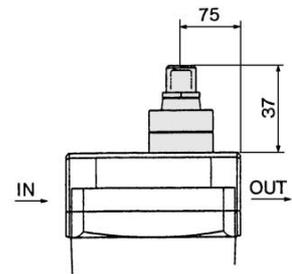
Accessory

D: With auto-drain (N.O.) for AM850



Option

T: With element service indicator



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											
									H	I	J	K	L	M	N	O	P	Q	R	S
AM850	1 1/2, 2	460.5	42	348	220	57.5	220	10	463.5	180	30	15	24	13	120	184	220	110	18	6.0

HA

AT

ID

AMG

AFF

AM

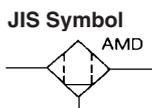
Misc.

Micro Mist Separator

Series AMD

Series AMD can separate and remove aerosol state oil mist in compressed air and remove carbon or dust of more than 0.01 μm .

It should be used as prefilter of compressed air for precision instruments or clean room required for higher clean air.



Model

Model	AMD150	AMD250	AMD350	AMD450	AMD550	AMD650	AMD850
Rated flow (l/min (ANR)) ^{Note)}	200	500	1000	2000	3500	6000	12000
Port size (Nominal size B)	1/8, 1/4, 3/8	1/4, 3/8, 1/2	3/8, 1/2, 3/4	1/2, 3/4, 1	3/4, 1	1, 1 1/2	1 1/2, 2
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5



Note) Max. flow capacity at a pressure of 0.7 MPa. Max. flow varies depending on operating pressure. Refer to "Flow Characteristics" (page 14-20-24) and figure of "Max. Air Flow" (page 14-20-23).

Model/Self-standing Type

Model	AMD800	AMD900	AMD1000
Rated flow (l/min (ANR))	8000	24000	40000
Port size (Nominal size B)	2 ^ø flange	2 ^ø , 3 ^ø , 4 ^ø flange	4 ^ø , 6 ^ø flange
Weight (kg)	100	220	430

Model/Piping Support Type

Model	AMD801	AMD901
Rated flow (l/min (ANR))	8000	24000
Port size (Nominal size B)	2 ^ø flange	2 ^ø , 3 ^ø , 4 ^ø flange
Weight (kg)	50	140

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa
Min. operating pressure ⁽¹⁾	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration	0.01 μm (95% particle size collection)
Oil mist removal rate	Max. 0.1 mg/m ³ (ANR) ⁽²⁾ (At saturation of element oil, less than 0.01 mg/m ³ (ANR) \approx 0.008 ppm)
Element life	2 years or when pressure drop reaches 0.1 MPa

Note 1) 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type) in the case of types with auto-drain.

Note 2) At oil mist density of 30 mg/m³ ANR is blown out by compressor.



Refer to "Made to Order Specifications" on page 14-20-55.

Accessory (Option)

Applicable model	AMD150	AMD250	AMD350	AMD450	AMD550	AMD650	AMD850
Bracket assembly (With cap bolt and spring washer)	BM51	BM52	BM53	BM54	BM55	BM56	BM57

⚠ Caution

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, pages 14-14-6 to 8 for Precautions on every series, and pages 14-20-62 to 64 for more detailed precautions on every series.

How to Order

AMD150 to AMD850

AMD **250** **03** **B** **J**

Body size

150	1/8 Standard
250	1/4 Standard
350	3/8 Standard
450	1/2 Standard
550	3/4 Standard
650	1 Standard
850	1 1/2 Standard

Thread type

Nil	Rc
F	G
N	NPT

Port size

01	1/8 ^B	06	3/4 ^B
02	1/4 ^B	10	1 ^B
03	3/8 ^B	14	1 1/2 ^B
04	1/2 ^B	20	2 ^B

Accessory (Option)*

Symbol	Description
Nil	—
B	Bracket
C	N.C. auto-drain
D	N.O. auto-drain

* Refer to the table below for accessory/option combinations.

Option*

J	Drain guide 1/4 ^B female thread
R	IN-OUT reversal direction
T	Element service indicator



Note) Refer to "How to Order Bowl Assembly" on page 14-20-59.

Accessory/Option Combinations

○ Available □ Not available ○ Depends on model

Accessory (Option)	Accessory / Optional specification					Applicable model						
	C	D	J	R	T	AMD150	AMD250	AMD350	AMD450	AMD550	AMD650	AMD850
Accessory												
N.C. auto-drain	C					○	○	○	○	○	○	○
N.O. auto-drain	D					○	○	○	○	○	○	○
Drain guide 1/4 B	J					○	○	○	○	○	○	○
Option												
IN-OUT reversal direction	R	○	○	○	○	○	○	○	○	○	○	○
Element service indicator	T	○	○	○	○	○	○	○	○	○	○	○

Self-standing type AMD800 to AMD1000

AMD **8** **00** **20**

Body size

8
9
10

Port size

20	2 ^B flange
30	3 ^B flange
40	4 ^B flange
60	6 ^B flange

Type

00	With manual drain cock
10	With auto-drain

Model Selection

Select the model in accordance with the following procedure taking the inlet pressure and max. air flow into consideration.

(Example) Inlet pressure: 0.6 MPa

Max. air flow capacity: 5 m³/min (ANR)

- Select the point of contact A of inlet pressure and max. air capacity in the graph.
- AMD650 is obtained when the max. flow line is above the point of intersection A in the graph.



Note) Make sure to select a model that has the maximum flow rate line above the obtained intersecting point. With a model that has the maximum flow rate line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

Piping support type AMD801/901

AMD **8** **01** **20**

Body size

8
9

Port size

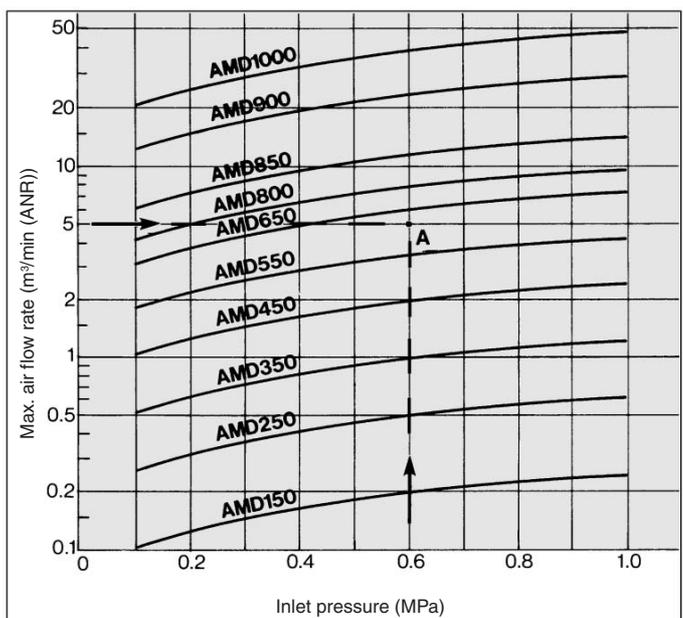
20	2 ^B flange
30	3 ^B flange
40	4 ^B flange

Type

01	With manual drain cock
11	With auto-drain

Max. Air Flow

————— Max. flow line



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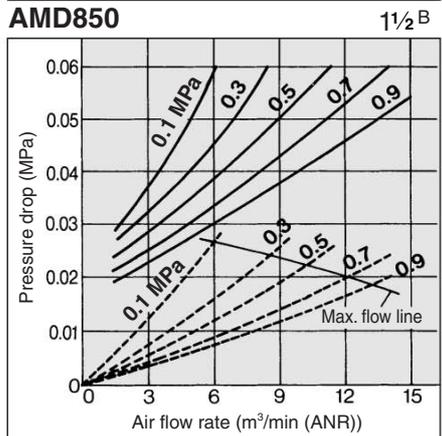
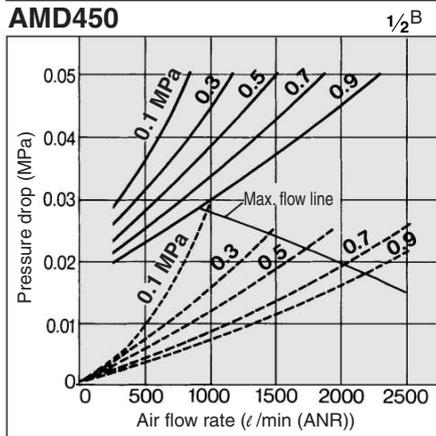
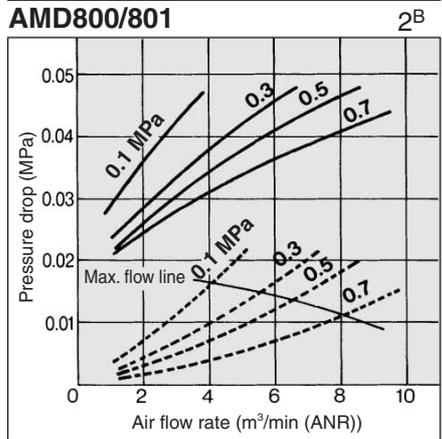
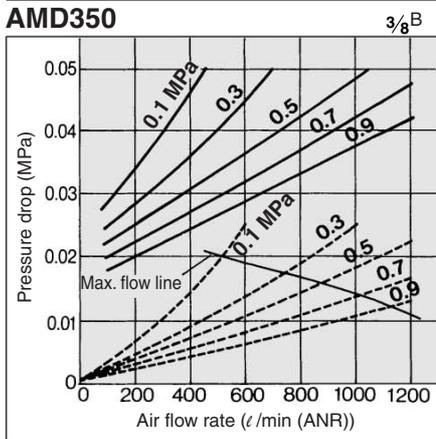
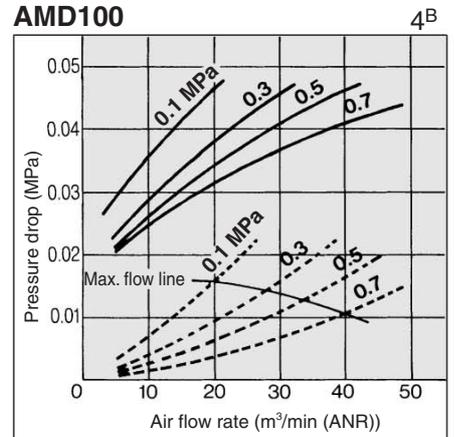
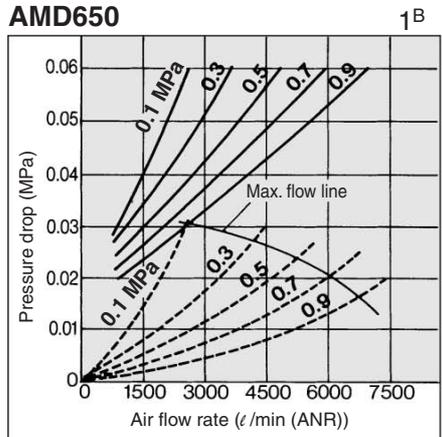
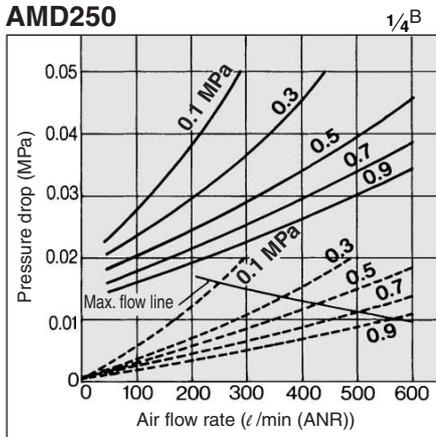
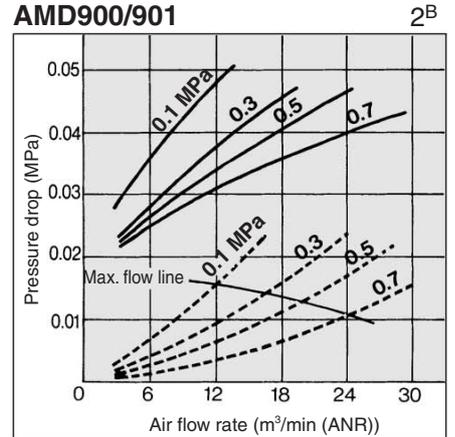
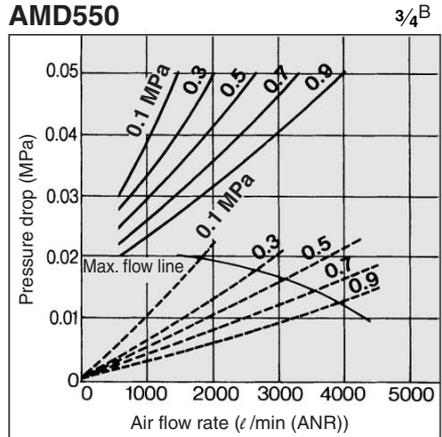
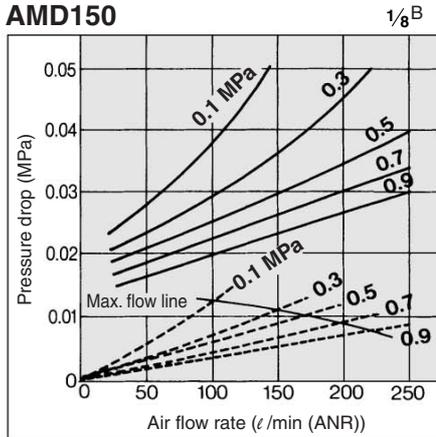
AM

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Series AMD

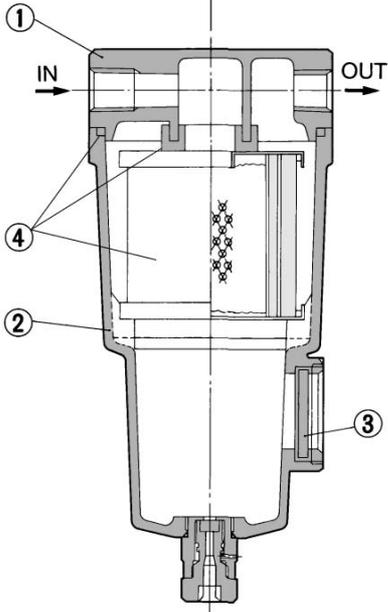
Flow Characteristics/Select the model taking the max. flow capacity into consideration. — Element oil saturation - - - - - Initial condition

Note) Compressed air over max. flow line in the table below may not meet the specifications of the product. It may cause damage to the element.

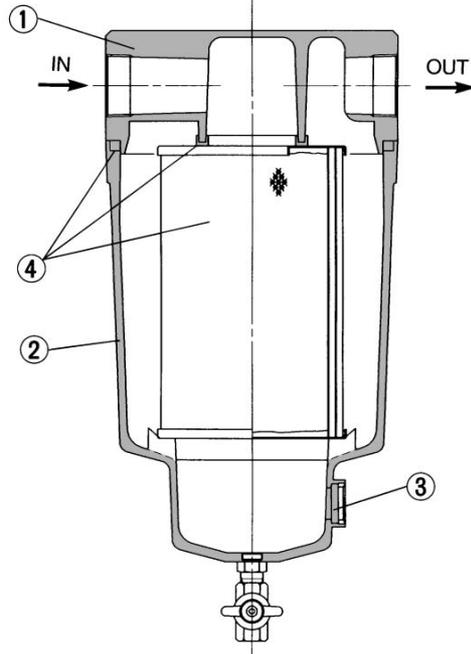


Construction

AMD150 to AMD650



AMD850



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Chrome treated
②	Housing	Aluminum die-casted*	Epoxy coating on inner surface
③	Sight glass	Tempered glass	

Replacement Parts

* AMD850 is aluminum casted.

No.	Description	Material	Model						
			AMD150	AMD250	AMD350	AMD450	AMD550	AMD650	AMD850
④	Element assembly	Glass fiber, Others	AMD-EL150	AMD-EL250	AMD-EL350	AMD-EL450	AMD-EL550	AMD-EL650	AMD-EL850

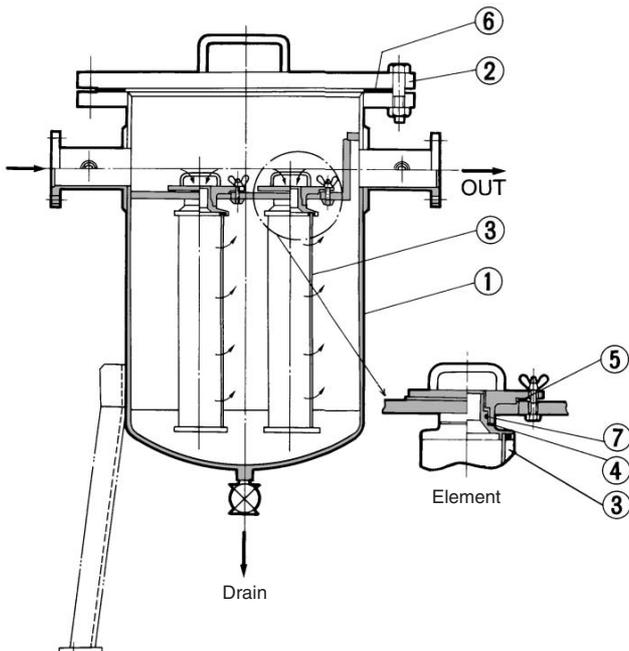
* Element assembly: With gasket and O-ring



Note: Refer to page 14-20-59 for "How to Order Bowl Assembly".

Note: Sight glass is indicated in the figure above for easy understanding of parts, however mounting position is different. Refer to dimensions on pages 14-20-26 to 14-20-27 for details.

AMD800 to 1000



Component Parts

No.	Description	Model		Note
		AMD800/900/1000	AMD801/901	
①	Filter case	SGP-E, SS400	SGP-E, SS400	
②	Cover	SS400	SGP-E, SS400	

Replacement Parts

No.	Description	Material	Model				
			AMD800	AMD801	AMD900	AMD901	AMD1000
③	Element	—	63174	63174	63174 3 pcs.	63174 3 pcs.	63174 5 pcs.
④	Packing	NBR	63148	63148	63148 3 pcs.	63148 3 pcs.	63148 5 pcs.
⑤	Packing	NBR	OD.112 x I.D.90 x T3	—	OD.112 x I.D.90 x T3 3 pcs.	—	OD.112 x I.D.90 x T3 5 pcs.
⑥	Gasket	V#6500	AL-61S	AL-60S	AL-63S	AL-62S	AL-31S
⑦	O-ring	NBR	JIS B 2401G35 1 pc.	JIS B 2401G35 1 pc.	JIS B 2401G35 3 pcs.	JIS B 2401G35 3 pcs.	JIS B 2401G35 5 pcs.

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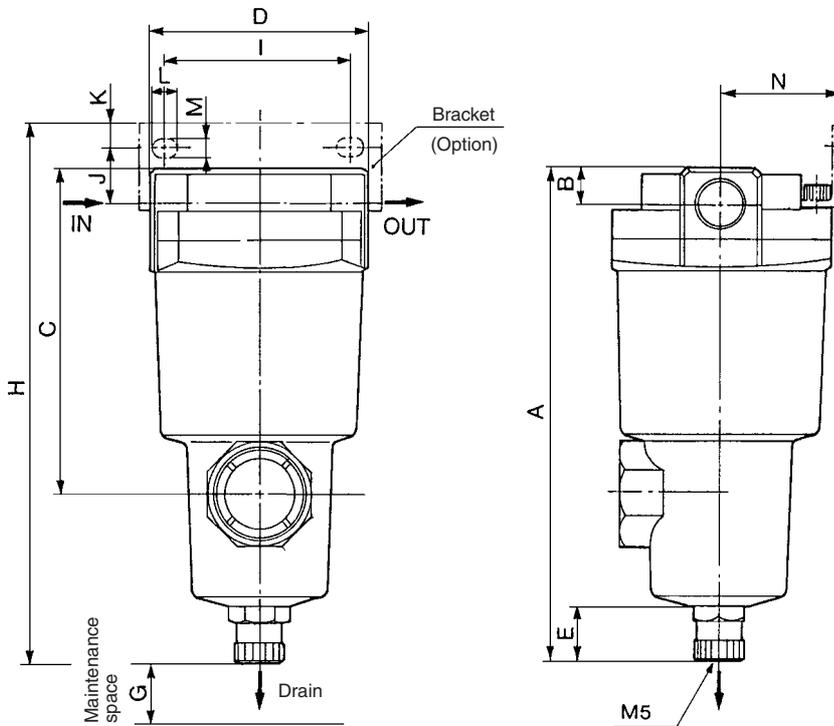
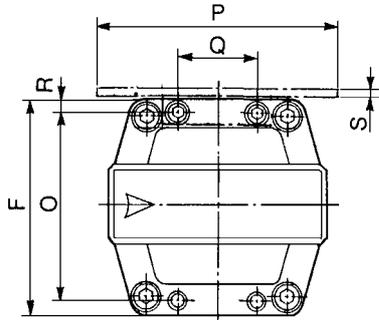
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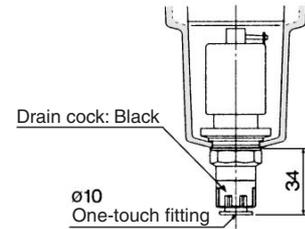
Series AMD

AMD150 to AMD650 Dimensions

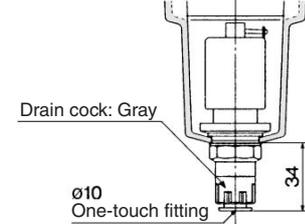


Accessory

D: With auto-drain (N.O.)



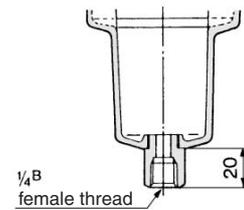
C: With auto-drain (N.C.)



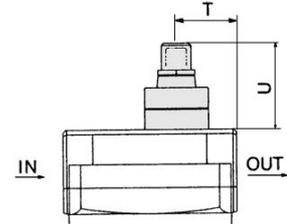
* N.C. auto-drain not available for AMD650.

Option

J: With drain guide

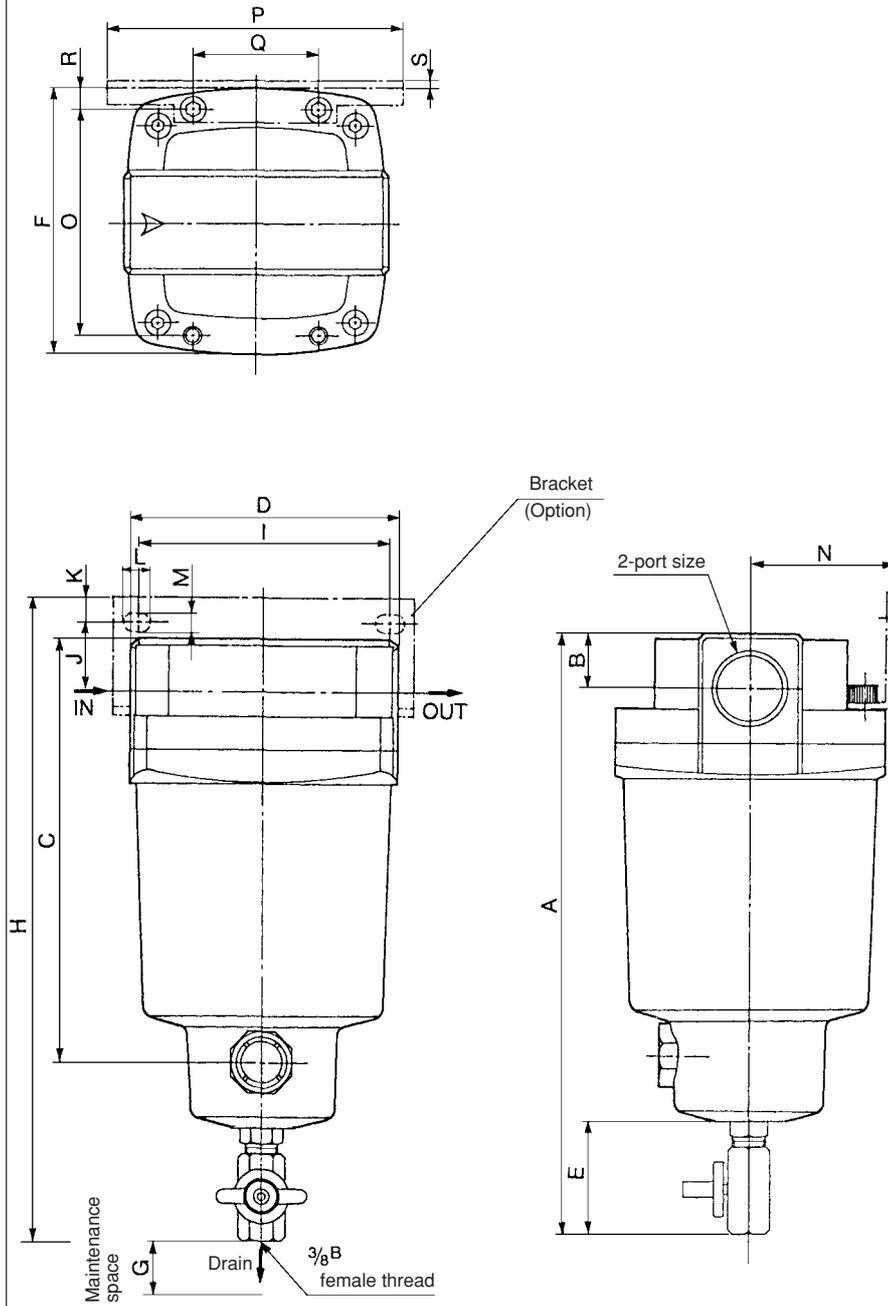


T: With element service indicator



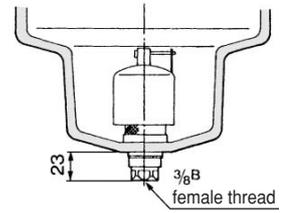
Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											Element service indicator		
									H	I	J	K	L	M	N	O	P	Q	R	S	T	U
AMD150	1/8, 1/4, 3/8	159	13	100	63	20	63	10	166	56	15	5	9	5.5	35	54	70	26	4.5	1.6	24	37
	1/4, 3/8	172	13	113	76	20	76	10	187	66	20	8	12	6	40	66	84	28	5	2.0	27	37
AMD250	1/2	178	16	119	76	20	76	10	187	66	17	8	12	6	40	66	84	28	5	2.0	27	37
	3/8, 1/2	204	16	145	90	20	90	10	218	80	22	8	14	7	50	80	100	34	5	2.3	32	37
AMD350	3/4	210	19	151	90	20	90	10	218	80	19	8	14	7	50	80	100	34	5	2.3	32	37
	1/2, 3/4	225	19	166	106	20	106	10	241	90	25	10	14	9	55	88	110	50	9	3.2	37	37
AMD450	1	232	22	173	106	20	106	10	241	90	21	10	14	9	55	88	110	50	9	3.2	37	37
	3/4, 1	259	22	200	122	20	122	10	277	100	30	10	16	9	65	102	130	60	10	4.5	39	37
AMD550	3/4, 1	259	22	200	122	20	122	10	277	100	30	10	16	9	65	102	130	60	10	4.5	39	37
AMD650	1, 1 1/2	311	32	253	160	20	160	10	334	150	40	15	20	11	85	136	180	76	12	4.5	55	37

AMD850 Dimensions



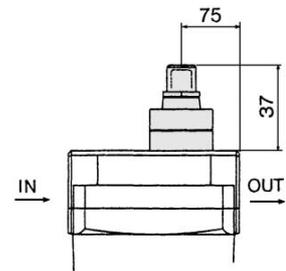
Accessory

D: With auto-drain (N.O.) for AMD850



Option

T: With element service indicator



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											
									H	I	J	K	L	M	N	O	P	Q	R	S
AMD850	1 1/2, 2	460.5	42	348	220	57.5	220	10	463.5	180	30	15	24	13	120	184	220	110	18	6

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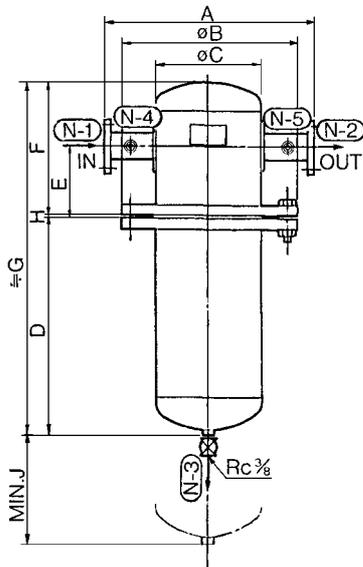
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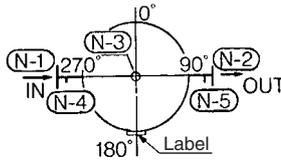
Series AMD

AMD801/901/800/900/1000 Dimensions

AMD801/901

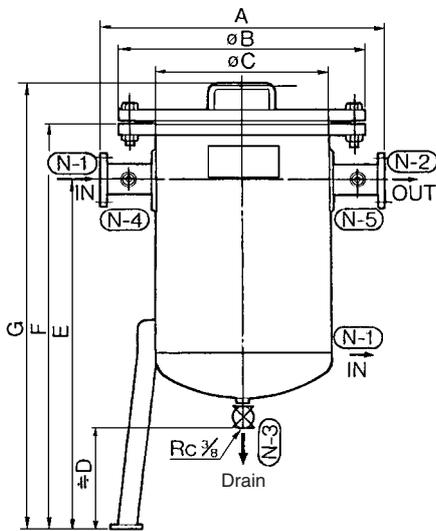


ORIENTATION

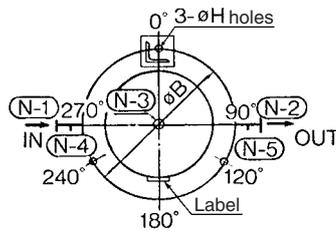


Model	Connection (Flange)	A	øB	øC	D	E	F	G	H	J
AMD801	2 ^B	400	280	6 ^B	760	150	270	1033	3	887
AMD901	2 ^B , 3 ^B , 4 ^B	620	445	12 ^B	795	300	520	1318	3	972

AMD800/900/1000



ORIENTATION



Model	Connection (Flange)	A	øB	øC	D	E	F	G	H	Anchor bolt
AMD800	2 ^B , 3 ^B	500	300	8 ^B	300	1300	1430	1520	20	M16 x l 400
AMD900	2 ^B , 3 ^B , 4 ^B	720	560	400	300	1320	1480	1585	24	M20 x l 500
AMD1000	4 ^B , 6 ^B	870	745	550	300	1380	1610	1740	24	M20 x l 500



Please refer to Made to Order Specifications of Series AMD on pages 14-20-55 to 14-20-57.

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Micro Mist Separator with Prefilter

Series *AMH*

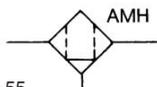
Series AMH can separate and remove aerosol state oil mist in compressed air and remove carbon or dust of more than 0.01 μm .

It should be used as prefilter of compressed air for precision instruments or clean room required for higher clean air.

The conventional pneumatic pressure line Series AM + Series AMD have been integrated to achieve a reduction in installation space, savings in piping installation labor, and reduced costs.



JIS Symbol



P. 14-20-55

Model

Model	AMH150	AMH250	AMH350	AMH450	AMH550	AMH650	AMH850
Rated flow (Note) (m^3/min (ANR))	200	500	1000	2000	3500	6000	12000
Port size (Nominal size B)	1/8, 1/4, 3/8	1/4, 3/8, 1/2	3/8, 1/2, 3/4	1/2, 3/4, 1	3/4, 1	1, 1 1/2	1 1/2, 2
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5



Note) Max. flow capacity at pressure of 0.7 MPa. It varies depending on operating pressure. Refer to "Flow Characteristics" (page 14-20-32) and figure of "Max. Air Flow" (page 14-20-30).

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa
Min. operating pressure ⁽¹⁾	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration	0.01 μm (95% particle size collection)
Oil mist removal rate	Max. 0.1 mg/m^3 (ANR) ⁽²⁾ (At saturation of element oil, less than 0.01 mg/m^3 (ANR) = 0.008 ppm)
Element life	2 years or when pressure drop reaches 0.1 MPa

Note 1) 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type) in the case of types with auto-drain.

Note 2) At oil mist density of 30 mg/m^3 ANR is blown out by compressor.



Refer to "Made to Order Specifications" on page 14-20-55.

Accessory (Option)

Applicable model	AMH150	AMH250	AMH350	AMH450	AMH550	AMH650	AMH850
Bracket assembly (With cap bolt and spring washer)	BM51	BM52	BM53	BM54	BM55	BM56	BM57

Model Selection

Select the model in accordance with the following procedure taking the inlet pressure and max. air flow into consideration.

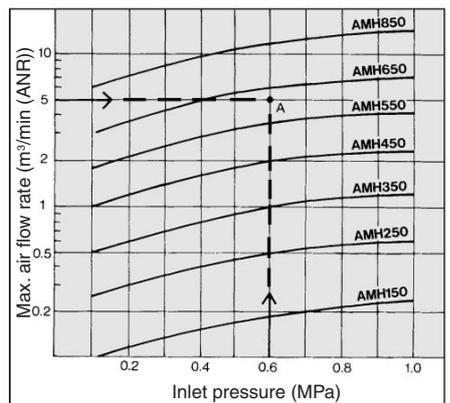
(Example) Inlet pressure: 0.6 MPa
Max. air flow capacity: 5 m^3/min (ANR)

1. Select the point of contact A of inlet pressure and max. air capacity in the graph.
2. AMH650 is obtained when the max. flow line is above the point of intersection A in the graph.



Note) Make sure to select a model that has the maximum flow rate line above the obtained intersecting point. With a model that has the maximum flow rate line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

Max. Air Flow



Caution

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, pages 14-14-6 to 8 for Precautions on every series, and pages 14-20-62 to 64 for more detailed precautions on every series.

How to Order

AMH150 to AMH850

AMH **250** **03** **B** **J**

Body size

150	1/8 Standard
250	1/4 Standard
350	3/8 Standard
450	1/2 Standard
550	3/4 Standard
650	1 Standard
850	1 1/2 Standard

Thread type

Nil	Rc
F	G
N	NPT

Port size

01	1/8 ^B	06	3/4 ^B
02	1/4 ^B	10	1 ^B
03	3/8 ^B	14	1 1/2 ^B
04	1/2 ^B	20	2 ^B

Option

J	Drain guide 1/4 ^B female thread
R	IN-OUT reversal direction
T	Element service indicator

Accessory (Option) *

Symbol	Description
Nil	—
B	Bracket
C	N.C. auto-drain
D	N.O. auto-drain

* Refer to the table below for accessory/option combinations.



Note) Refer to "How to Order Bowl Assembly" on page 14-20-59.

Accessory/Option Combinations

○ Available □ Not available ○ Depends on model

Accessory (Option)	Accessory	Option specifications					Applicable model							
		C	D	J	R	T	AMH150	AMH250	AMH350	AMH450	AMH550	AMH650	AMH850	
Accessory	N.C. auto-drain	C	□	□	○	○	○	○	○	○	○	○	○	○
	N.O. auto-drain	D	□	□	○	○	○	○	○	○	○	○	○	○
Option	Drain guide 1/4 B	-J	○	○	○	○	○	○	○	○	○	○	○	○
	IN-OUT reversal direction	-R	○	○	○	○	○	○	○	○	○	○	○	○
	Element service indicator	-T	○	○	○	○	○	○	○	○	○	○	○	○

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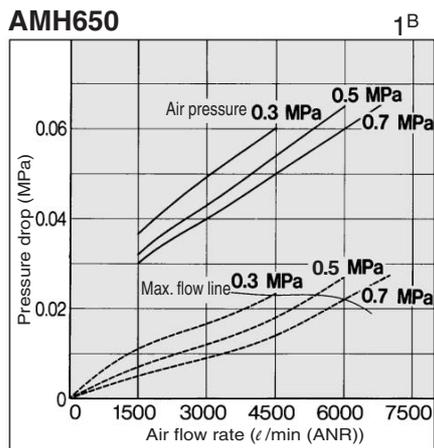
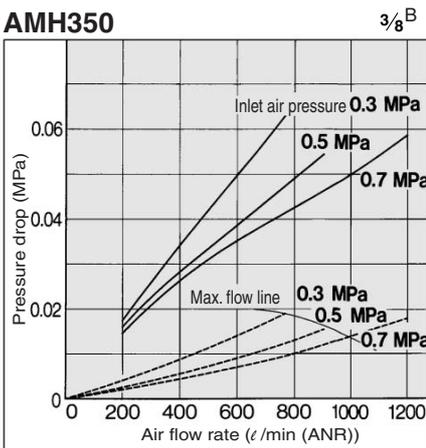
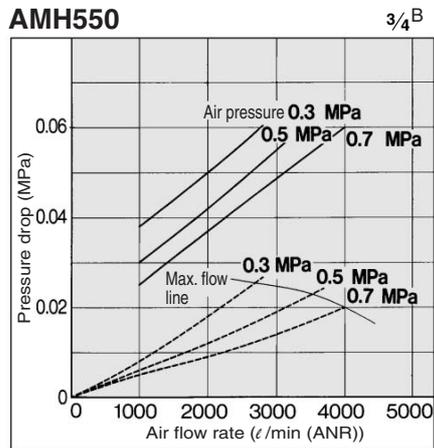
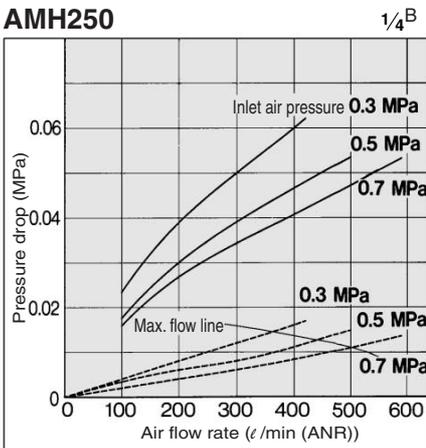
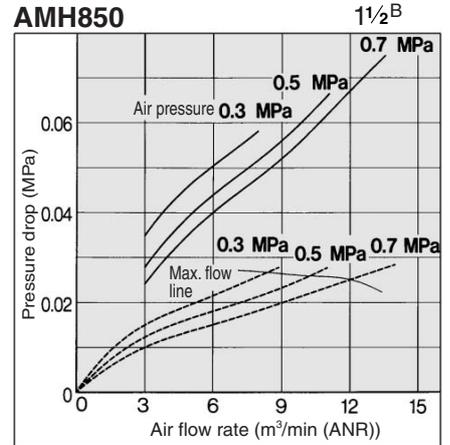
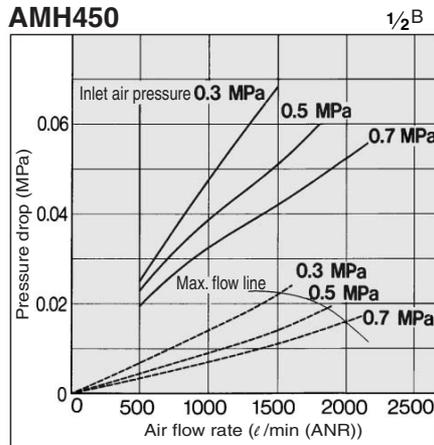
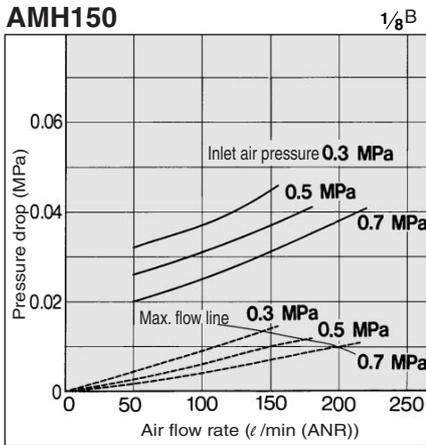
Misc.

Series AMH

Flow Characteristics/Select the model taking the max. flow capacity into ——— Element oil saturation - - - - - Initial condition



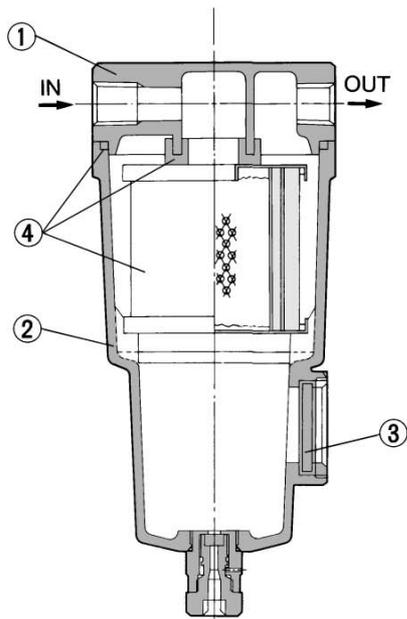
Note) Compressed air over max. flow line in the table below may not meet the specifications of the product. It may cause damage to the element.



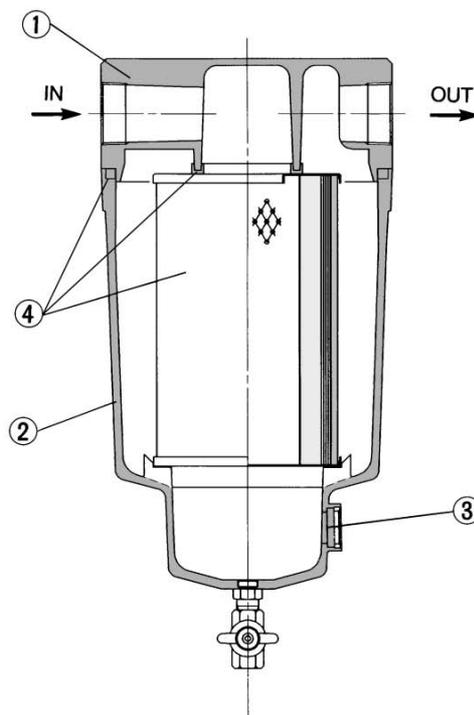
Micro Mist Separator with Prefilter Series AMH

Construction

AMH150 to AMH650



AMH850



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Chrome treated
②	Housing	Aluminum die-casted*	Epoxy coating on inner surface
③	Sight glass	Tempered glass	

* AMH850 is aluminum casted.



Note: Refer to page 14-20-59 for "How to Order Bowl Assembly".



Note: Sight glass is indicated in the figure above for easy understanding of parts, however mounting position is different. Refer to dimensions on pages 14-20-34 to 14-20-35 for details.

Replacement Parts

No.	Description	Material	Model						
			AMH150	AMH250	AMH350	AMH450	AMH550	AMH650	AMH850
④	Element assembly	Glass fiber, Others	AMH-EL150	AMH-EL250	AMH-EL350	AMH-EL450	AMH-EL550	AMH-EL650	AMH-EL850

* Element assembly: With gasket and O-ring

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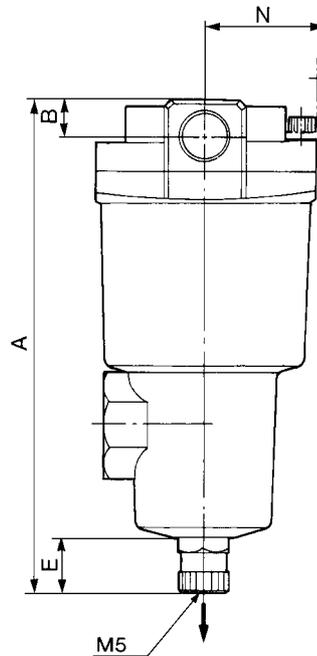
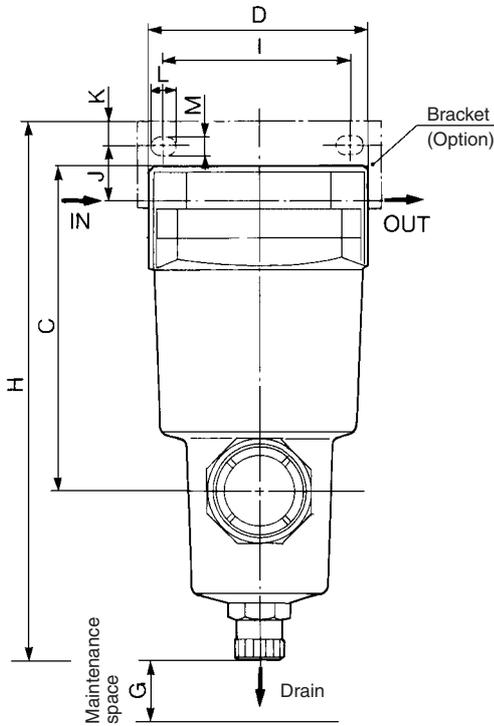
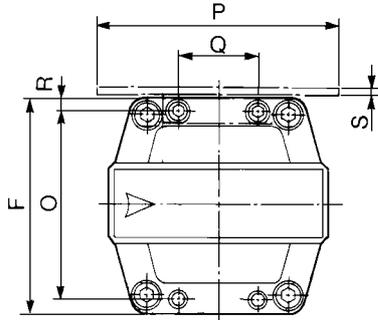
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AM

Misc.

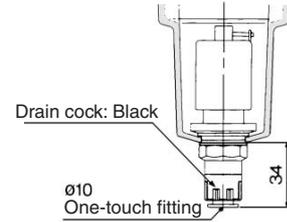
Series AMH

AMH150 to AMH650 Dimensions

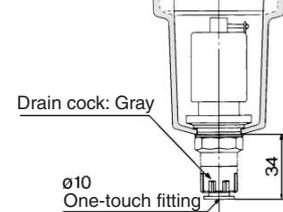


Accessory

D: With auto-drain (N.O.)



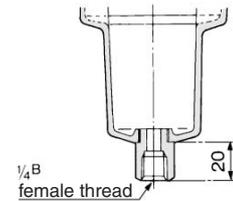
C: With auto-drain (N.C.)



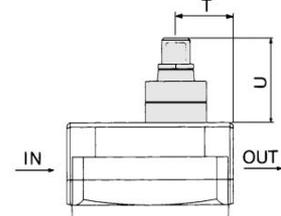
* N.C. auto-drain not available for AMH650.

Option

J: With drain guide

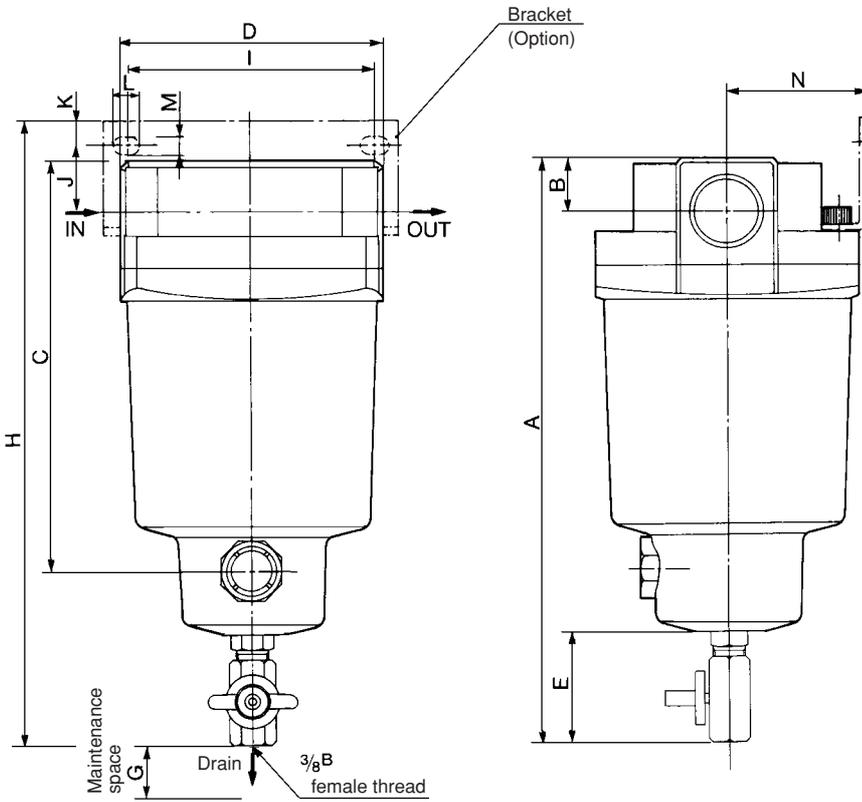
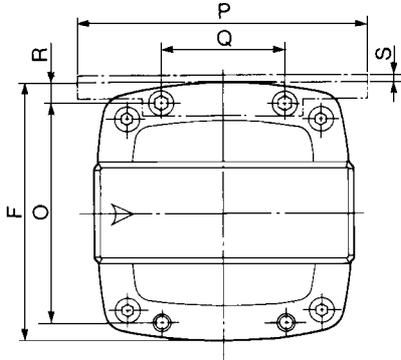


T: With element service indicator



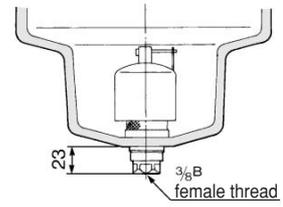
Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											Element service indicator		
									H	I	J	K	L	M	N	O	P	Q	R	S	T	U
AMH150	1/8, 1/4, 3/8	159	13	100	63	20	63	10	166	56	15	5	9	5.5	35	54	70	26	4.5	1.6	24	37
	1/4, 3/8	172	13	113	76	20	76	10	187	66	20	8	12	6	40	66	84	28	5	2	27	37
AMH250	1/2	178	16	119	76	20	76	10	187	66	17	8	12	6	40	66	84	28	5	2	27	37
	3/8, 1/2	204	16	145	90	20	90	10	218	80	22	8	14	7	50	80	100	34	5	2.3	32	37
AMH350	3/4	210	19	151	90	20	90	10	218	80	19	8	14	7	50	80	100	34	5	2.3	32	37
	1/2, 3/4	225	19	166	106	20	106	10	241	90	25	10	14	9	55	88	110	50	9	3.2	37	37
AMH450	1	232	22	173	106	20	106	10	241	90	21	10	14	9	55	88	110	50	9	3.2	37	37
	3/4, 1	259	22	200	122	20	122	10	277	100	30	10	16	9	65	102	130	60	10	4.5	39	37
AMH650	1, 1 1/2	311	32	253	160	20	160	10	334	150	40	15	20	11	85	136	180	76	12	4.5	55	37

AMH850 Dimensions



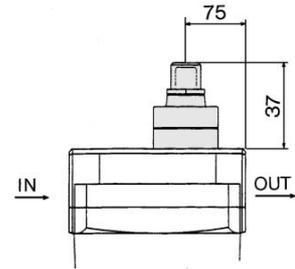
Accessory

D: With auto-drain (N.O.) for AMD850



Option

T: With element service indicator



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Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											
									H	I	J	K	L	M	N	O	P	Q	R	S
AMH850	1 1/2, 2	460.5	42	348	220	57.5	220	10	463.5	180	30	15	24	13	120	184	220	110	18	6.0



Please refer to Made to Order Specifications of Series AMH on pages 14-20-55 to 14-20-57.



Super Mist Separator Series AME

Series AME separates and absorbs aerosol state fine oil particles in compressed air and changes the oil lubricating compressed air to oilless equivalent air.

It should be applied for filtration of compressed air requiring high cleanliness for coating lines, compressed air for clean rooms and compressed air for equipment that must avoid oils.

Due to its special configuration, Series AME indicates the life of the filter element by a color change. Accordingly, the replacement time can be judged visually. (A red color spot indicates the replacing time.)

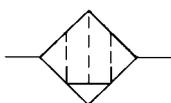
By all means Series "AM" should be used as a prefilter. Additionally the Series "AMF" in the rear stage can produce high quality compressed air as an air source for clean rooms.



JIS Symbol
AME



P. 14-20-57



Caution

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, pages 14-14-6 to 8 for Precautions on every series, and pages 14-20-62 to 64 for more detailed precautions on every series.

Model

Model	AME150	AME250	AME350	AME450	AME550	AME650	AME850
Rated flow (l/min (ANR)) <small>Note)</small>	200	500	1000	2000	3500	6000	12000
Port size (Nominal size B)	1/8, 1/4, 3/8	1/4, 3/8, 1/2	3/8, 1/2, 3/4	1/2, 3/4, 1	3/4, 1	1, 1 1/2	1 1/2, 2
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5



Note) Max. flow capacity at a pressure of 0.7 MPa.
Max. flow varies depending on operating pressure.
Refer to "Flow Characteristics" (page 14-20-38) and figure of "Max. Air Flow" (page 14-20-38).

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa
Min. operating pressure	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration	0.01 μm (95% particle size collection)
Oil mist removal rate	Less than 3.5 particles 0.3 μm or larger per liter of air (100 particles or less per cubic foot)
Element life	Element color indicator (When an element becomes saturated with oil the element surface changes from white to red.)



Refer to "Made to Order Specifications" on page 14-20-57.

Accessory (Option)

Applicable model	AME150	AME250	AME350	AME450	AME550	AME650	AME850
Bracket assembly (With cap bolt and spring washer)	BM51	BM52	BM53	BM54	BM55	BM56	BM57

How to Order

AME 250 03 B R

Body size

150	1/8 Standard
250	1/4 Standard
350	3/8 Standard
450	1/2 Standard
550	3/4 Standard
650	1 Standard
850	1 1/2 Standard

Option specifications

R IN-OUT reversal direction

Accessory (Option)

Nil	Nil
B	Bracket

Port size

01	1/8 ^B
02	1/4 ^B
03	3/8 ^B
04	1/2 ^B
06	3/4 ^B
10	1 ^B
14	1 1/2 ^B
20	2 ^B

Thread type

Nil	Rc
F	G
N	NPT

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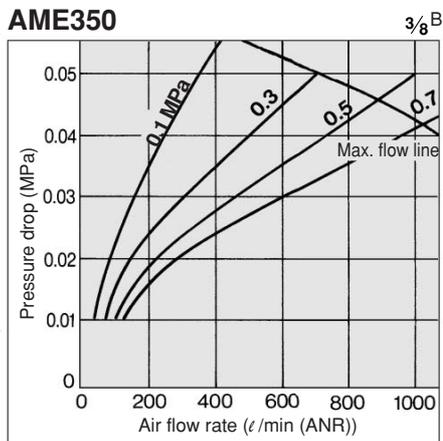
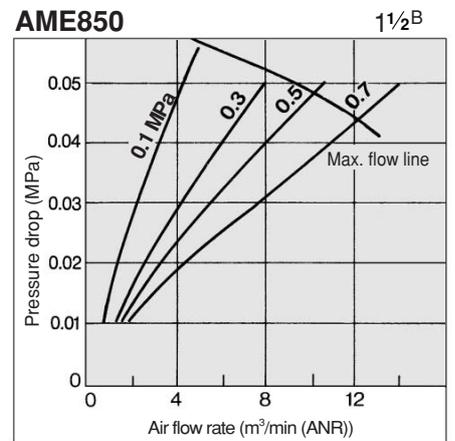
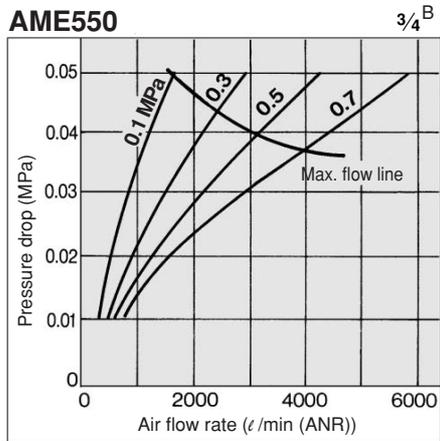
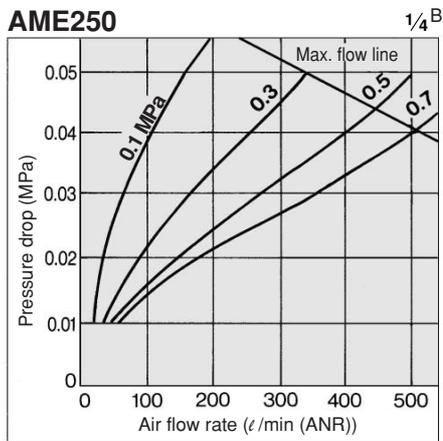
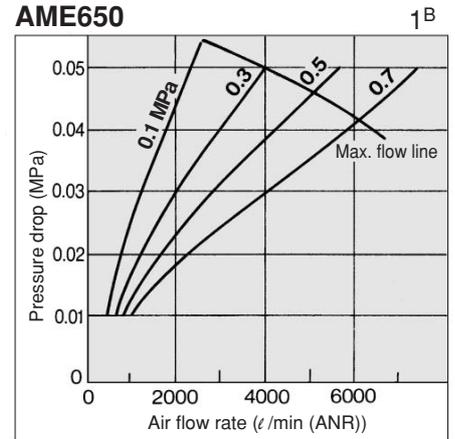
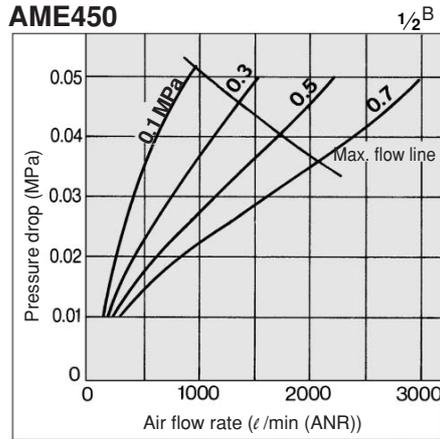
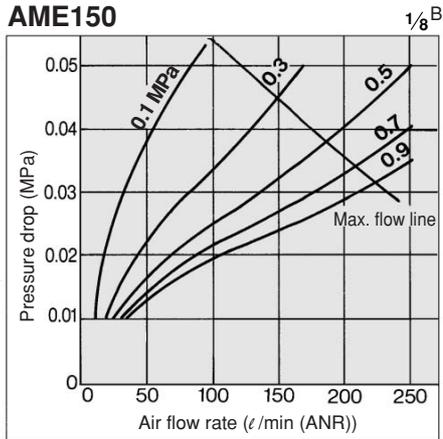
Note) Refer to "How to Order Bowl Assembly" on page 14-20-59.

Series AME

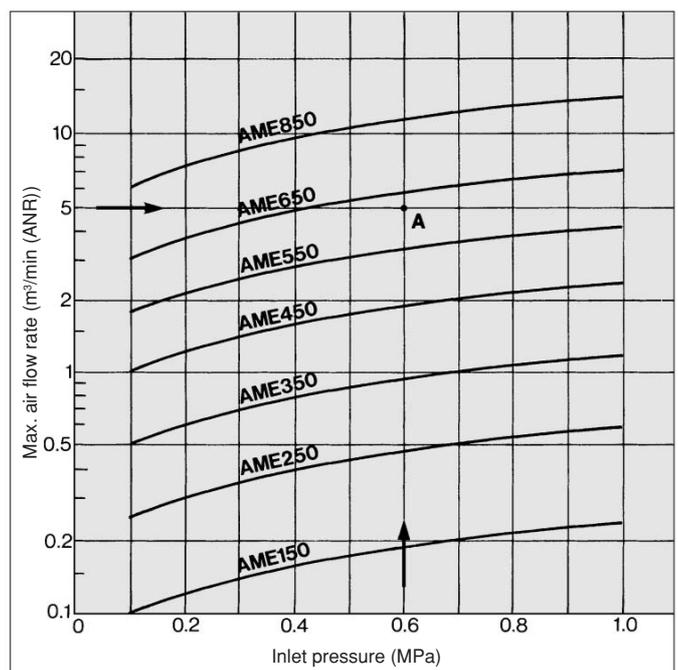
Flow Characteristics

Element initial condition

Note) Compressed air over max. flow line in the table below may not meet the specifications of the product. It may cause damage to the element.



Max. Air Flow



Model Selection

Select the model in accordance with the following procedure taking the inlet pressure and max. air flow into consideration.

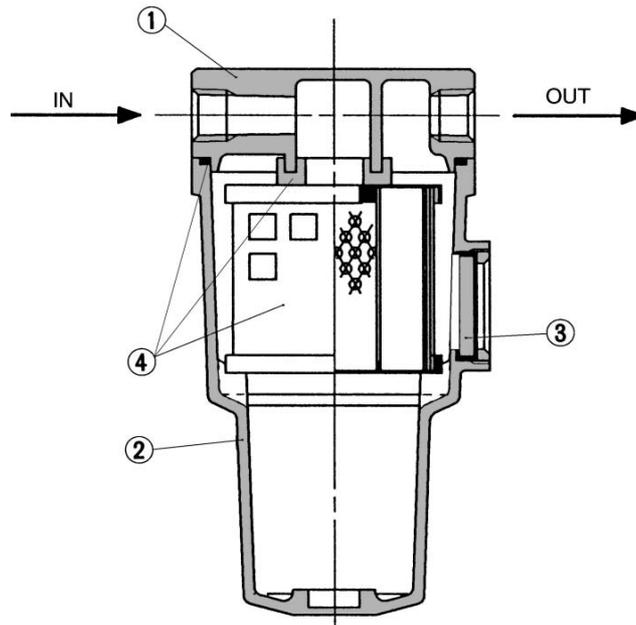
(Example) Inlet pressure: 0.6 MPa

Max. air flow capacity: 5 m³/min (ANR)

1. Select the point of contact A of inlet pressure and max. air capacity in the graph.
2. AME650 is obtained when the max. flow line is above the point of intersection A in the graph.

Note) Make sure to select a model that has the maximum flow rate line above the obtained intersecting point. With a model that has the maximum flow rate line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

Construction



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Chrome treated
②	Housing	Aluminum die-casted*	Epoxy coating on inner surface
③	Sight glass	Tempered glass	—



Note: Refer to page 14-20-59 for "How to Order Bowl Assembly".



Note: Sight glass is indicated in the figure above for easy understanding of parts, however mounting position is different. Refer to dimensions on pages 14-20-40 to 14-20-41 for details.

Replacement Parts

* AM850 is aluminum casted.

No.	Description	Material	Model						
			AME150	AME250	AME350	AME450	AME550	AME650	AME850
④	Element assembly	Glass fiber, Others	AME-EL150	AME-EL250	AME-EL350	AME-EL450	AME-EL550	AME-EL650	AME-EL850

* Element assembly: With gasket and O-ring

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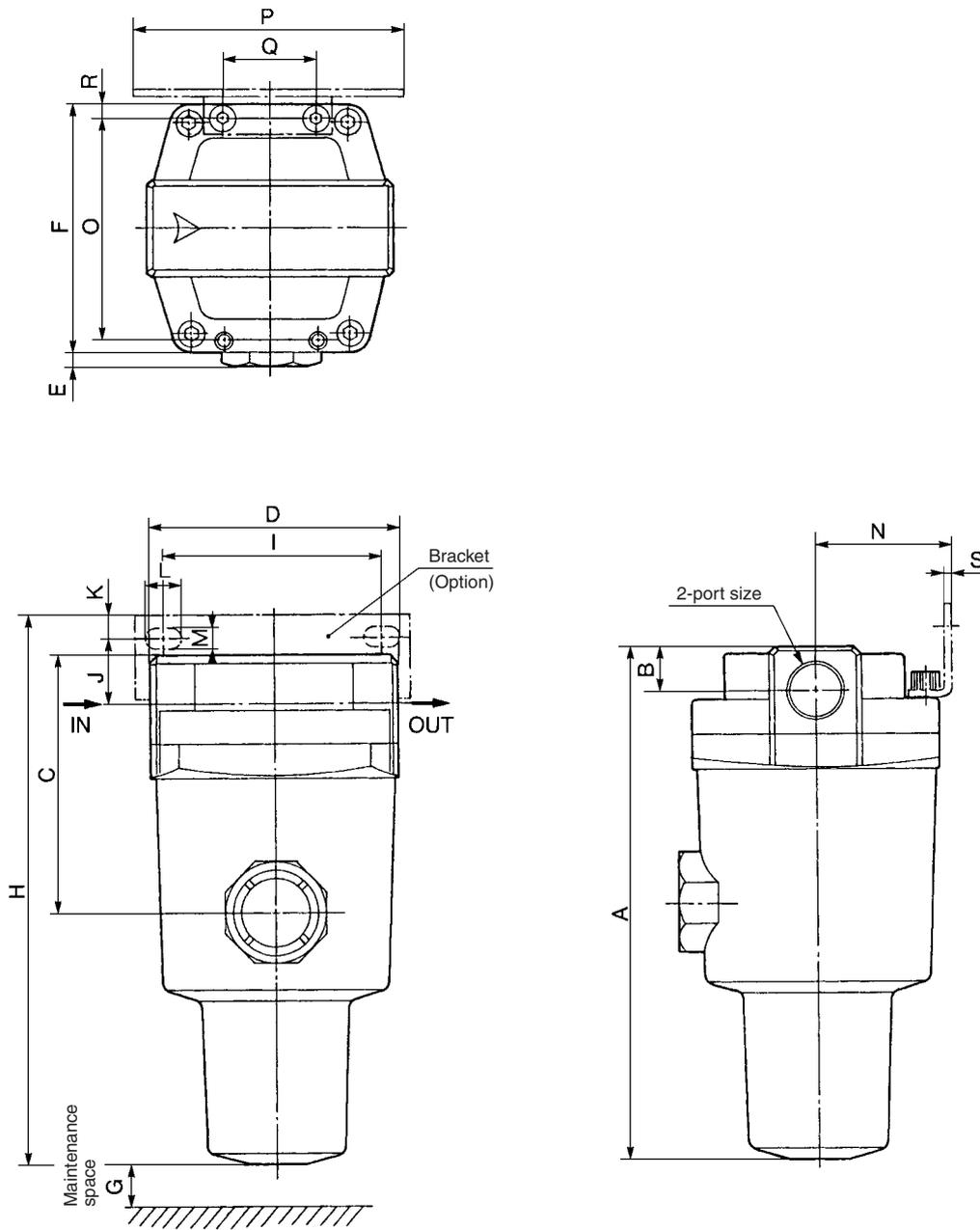
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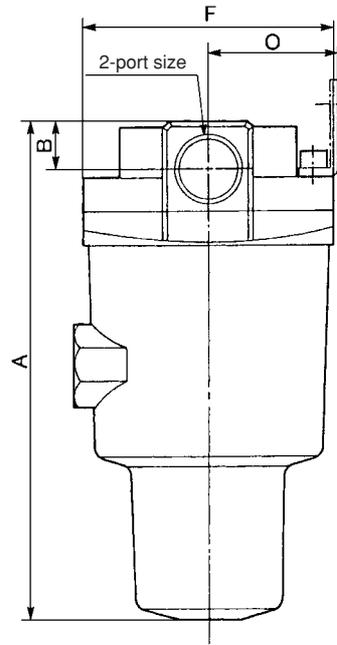
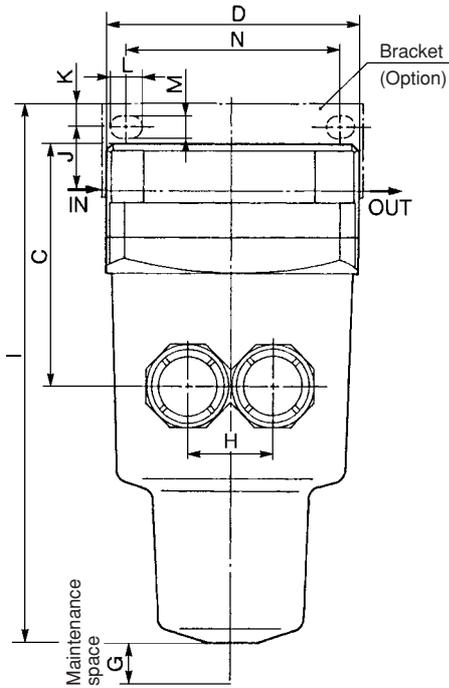
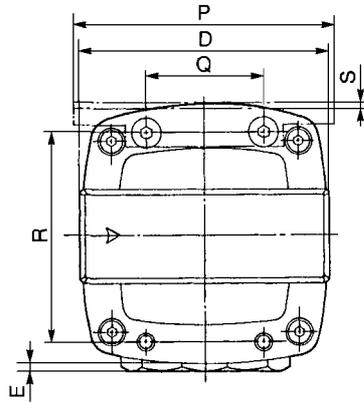
Series AME

AME150 to AME350 Dimensions



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											
									H	I	J	K	L	M	N	O	P	Q	R	S
AME150	1/8, 1/4, 3/8	139	13	55	63	7.5	63	10	146	56	15	5	9	5.5	35	54	70	26	4.5	1.6
	1/4, 3/8	152	13	66	76	4	76	10	167	66	20	8	12	6	40	66	84	28	5	2.0
AME250	1/2	158	16	72	76	4	76	10	167	66	17	8	12	6	40	66	84	28	5	2.0
	3/8, 1/2	184	16	92	90	5	90	10	198	80	22	8	14	7	50	80	100	34	5	2.3
AME350	3/4	190	19	98	90	5	90	10	198	80	19	8	14	7	50	80	100	34	5	2.3

AME450 to AME850 Dimensions



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	H	Dimensions with mounting bracket										
										I	J	K	L	M	N	O	P	Q	R	S
AME450	1/2, 3/4	205	19	100	106	3	106	10	36	221	25	10	14	9	90	55	110	50	88	3.2
	1	212	22	107	106	3	106	10	36	221	21	10	14	9	90	55	110	50	88	3.2
AME550	3/4, 1	239	22	128	122	3	122	10	44	257	30	10	16	9	100	65	130	60	102	4.5
AME650	1, 1 1/2	291	32	167	160	—	160	10	66	314	40	15	20	11	150	85	180	76	136	4.5
AME850	1 1/2, 2	403	42	235	220	—	220	10	96	406	30	15	24	13	180	120	220	110	184	6



Please refer to page 14-20-57 for Made to Order Specifications.

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Odor Removal Filter

Series *AMF*

Series AMF Odor Removal Filter efficiently removes odor in compressed air with an activated carbon element.

The unit is designed for use in food processing, pharmaceutical, brewing and breathing systems where odors must be removed.

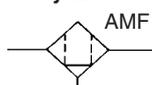
Removes odor and gas ingredients in compressed air.

Activated carbon element with large filtration area (1420 m²/g)

Easy replacement of elements



JIS Symbol



P. 14-20-57

Model

Model	AMF150	AMF250	AMF350	AMF450	AMF550	AMF650	AMF850
Rated flow (ℓ/min (ANR)) <small>Note)</small>	200	500	1000	2000	3500	6000	12000
Port size (Nominal size B)	1/8, 1/4, 3/8	1/4, 3/8, 1/2	3/8, 1/2, 3/4	1/2, 3/4, 1	3/4, 1	1, 1 1/2	1 1/2, 2
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5



Note) Max. flow capacity at a pressure of 0.7 MPa. Max. flow varies depending on operating pressure. Refer to "Flow Characteristics" (page 14-20-44) and figure of "Max. Air Flow" (page 14-20-45).

Model/Self-standing Type

Model	AMF800	AMF900	AMF1000
Rated flow (ℓ/min (ANR))	8000	24000	40000
Port size (Nominal size B)	2 ^ø flange	2 ^ø , 3 ^ø , 4 ^ø flange	4 ^ø , 6 ^ø flange
Weight (kg)	90	200	410

Model/Piping Support Type

Model	AMF801	AMF901
Rated flow (ℓ/min (ANR))	8000	24000
Port size (Nominal size B)	2 ^ø flange	2 ^ø , 3 ^ø , 4 ^ø flange
Weight (kg)	40	120

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa
Min. operating pressure	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration	0.01 μm (95% particle size collection)
Oil mist removal rate	Less than 3.5 particles 0.3 μm or larger per liter of air (100 particles or less per cubic foot) Series "AME" should be installed on the inlet side.)



Please refer to "Made to Order Specifications" on page 14-20-57.

Accessory (Option)

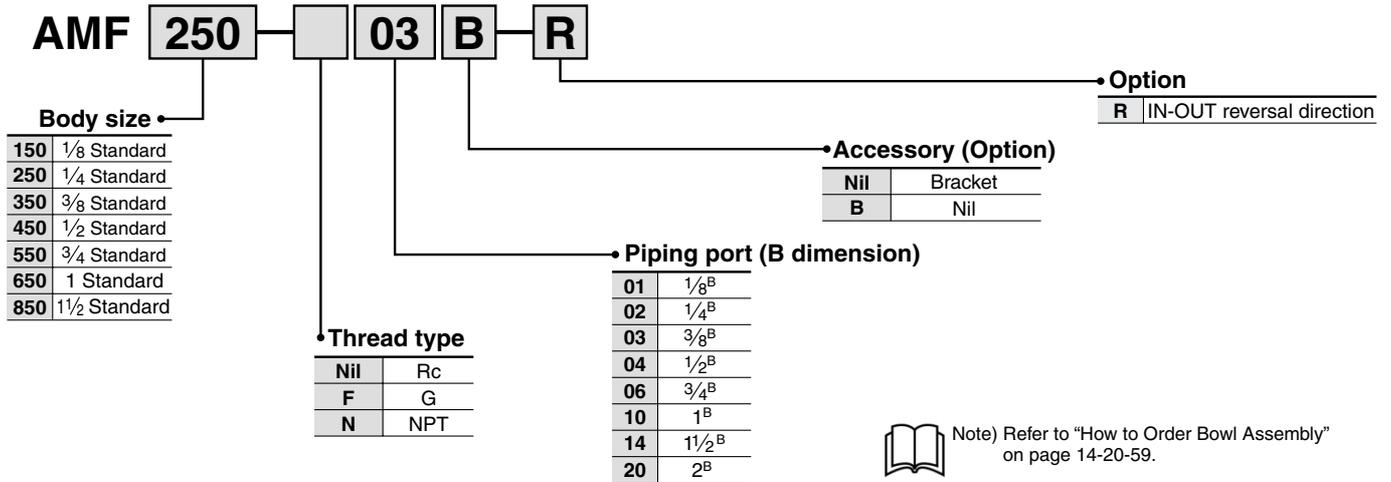
Applicable model	AMF150	AMF250	AMF350	AMF450	AMF550	AMF650	AMF850
Bracket assembly (With cap bolt and spring washer)	BM51	BM52	BM53	BM54	BM55	BM56	BM57

⚠ Caution

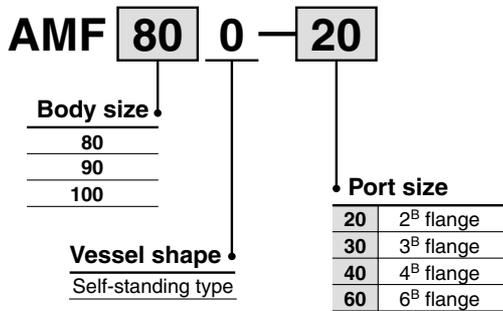
Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 14-14-6 to 8 for Precautions on every series, and pages 14-20-62 to 64 for more detailed precautions on every series.

How to Order

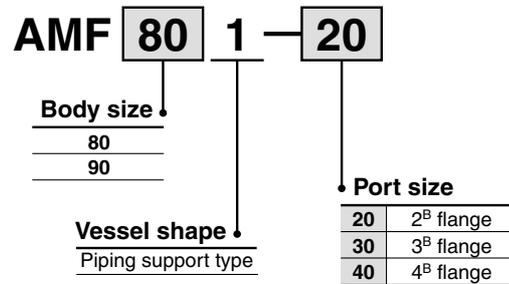
AMF150 to AMF850



Self-standing type AMF800 to AMF1000



Piping Support type AMF801/901



Model Selection

Select the model in accordance with the following procedure taking the inlet pressure and max. air flow into consideration.

(Example) Inlet pressure: 0.6 MPa

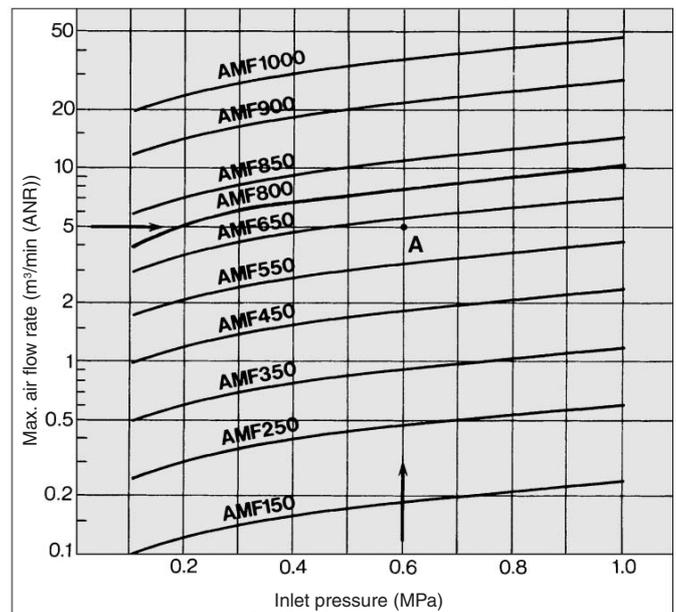
Max. air flow capacity: 5 m³/min (ANR)

1. Select the point of contact A of inlet pressure and max. air capacity in the graph.
2. AMF650 is obtained when the max. flow line is above the point of intersection A in the graph.



Note) Make sure to select a model that has the maximum flow rate line above the obtained intersecting point. With a model that has the maximum flow rate line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

Max. Air Flow



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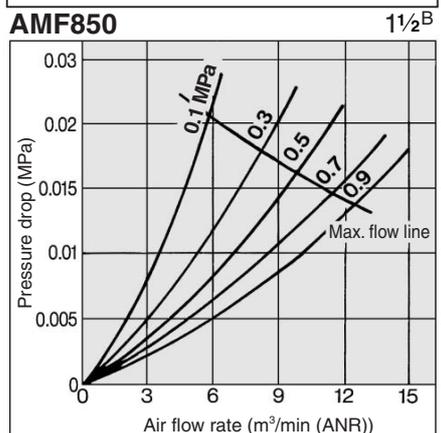
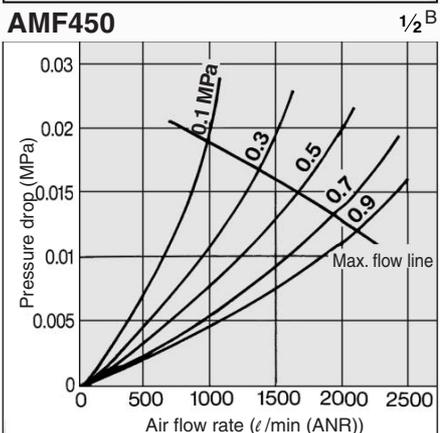
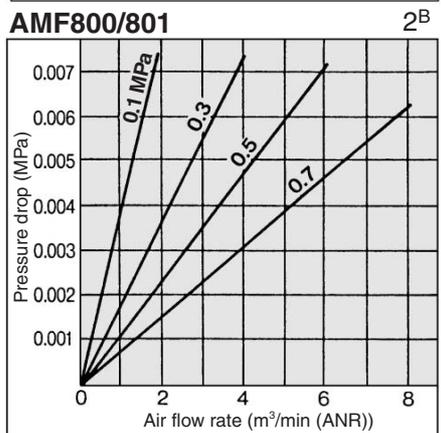
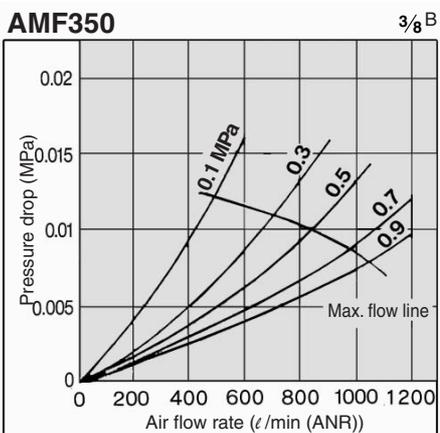
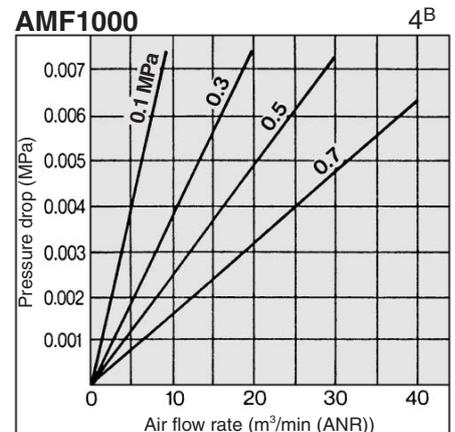
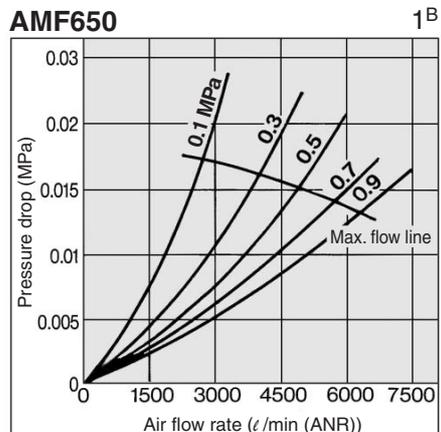
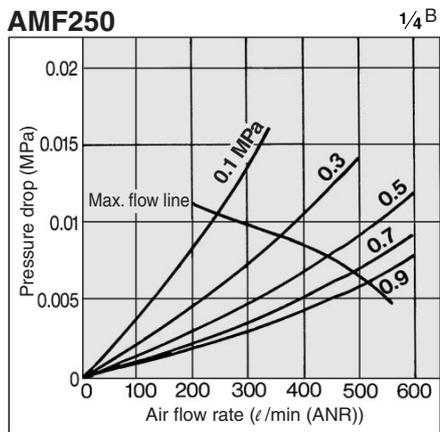
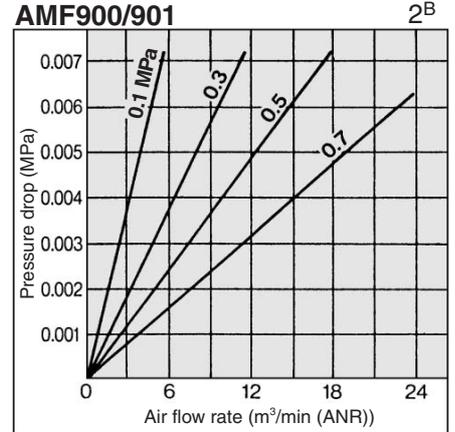
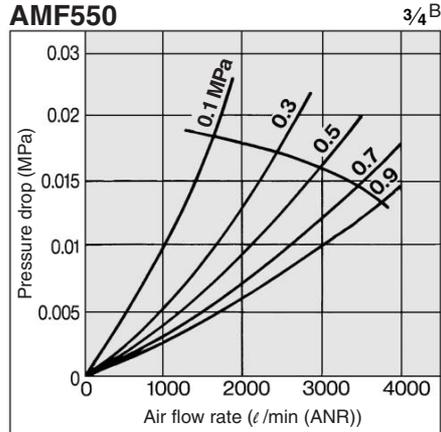
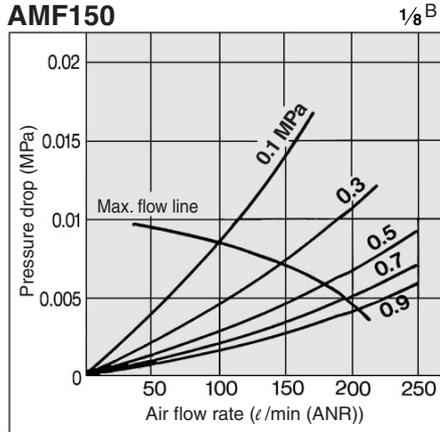
Misc.

Series AMF

Flow Characteristics/Refer to "How to Select" on page 14-20-43 regarding model selection. ————— Element initial condition

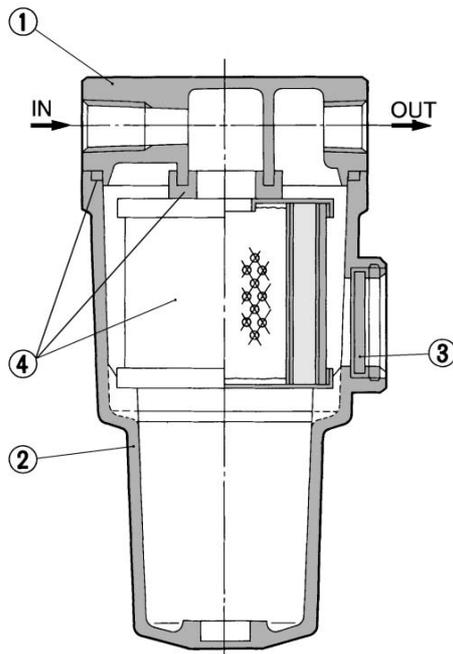


Note) Compressed air over max. flow line in the table below may not meet the specifications of the product. It may cause damage to the element.



Construction

AMF150 to AMF850



Component parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Chrome treated
②	Housing	Aluminum die-casted*	Epoxy coating on inner surface
③	Sight glass	Tempered glass	—



Note: Refer to page 14-20-59 for "How to Order Bowl Assembly".



Note: Sight glass is indicated in the figure above for easy understanding of parts, however mounting position is different. Refer to dimensions on pages 14-20-46 to 14-20-47 for details.

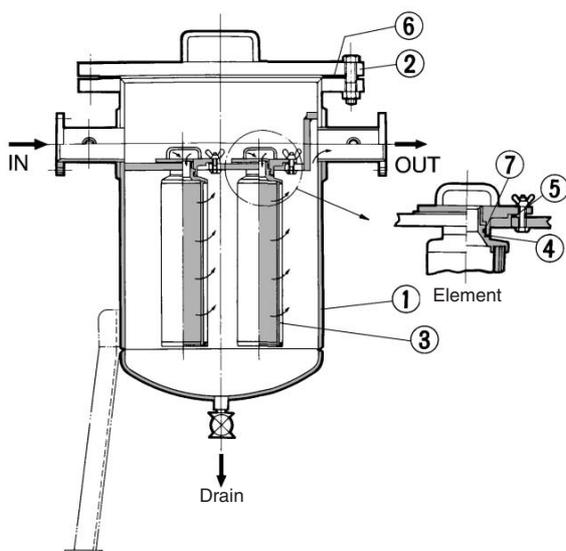
Replacement Parts

* AMF850 is aluminum casted.

No.	Description	Material	Model						
			AMF150	AMF250	AMF350	AMF450	AMF550	AMF650	AMF850
④	Element assembly	Glass fiber, Others	AMF-EL150	AMF-EL250	AMF-EL350	AMF-EL450	AMF-EL550	AMF-EL650	AMF-EL850

* Element assembly: With gasket and O-ring

AMF800 to 1000



Component Parts

No.	Description	Model		Note
		AMF800/900/1000	AMF801/901	
①	Filter case	SGP-E: SS400	SGP-E: SS400	
②	Cover	SS400	SGP-E: SS400	

Replacement Parts

No.	Description	Material	Model				
			AMF800	AMF801	AMF900	AMF901	AMF1000
③	Element	—	63271	63271	63271 3 pcs.	63271 3 pcs.	63271 5 pcs.
④	Packing	NBR	63148	63148	63148 3 pcs.	63148 3 pcs.	63148 5 pcs.
⑤	Packing	NBR	O.D.112 x I.D.90 x T3 1 pc.	—	O.D.112 x I.D.90 x T3 3 pcs.	—	O.D.112 x I.D.90 x T3 5 pcs.
⑥	Gasket	V#6500	AL-61S	AL-60S	AL-63S 3 pcs.	AL-62S	AL-31S
⑦	O-ring	NBR	JIS B 2401G35 1 pc.	JIS B 2401G35 1 pc.	JIS B 2401G35 3 pcs.	JIS B 2401G35 3 pcs.	JIS B 2401G35 5 pcs.

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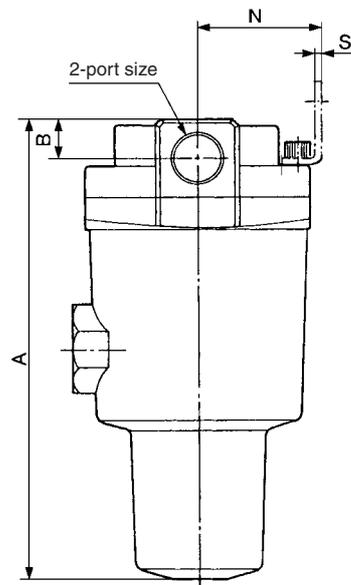
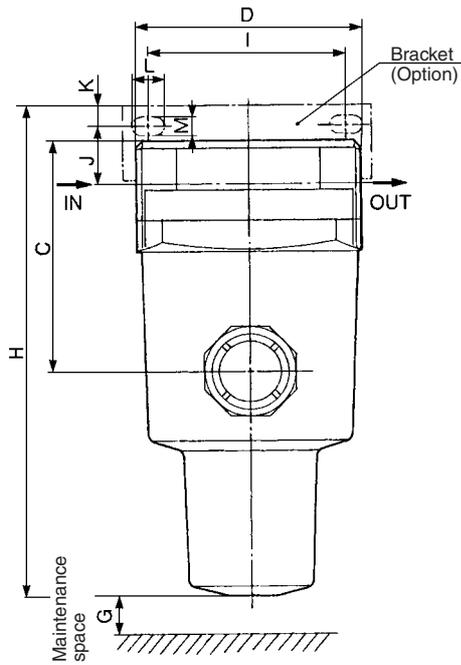
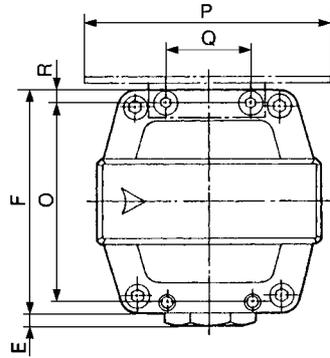
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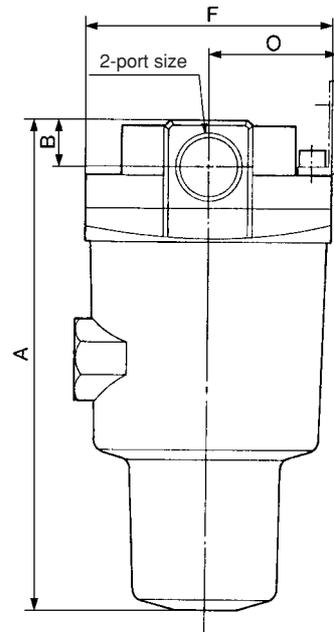
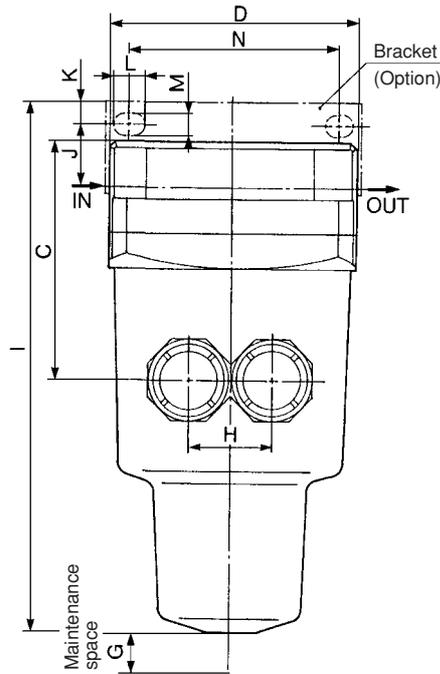
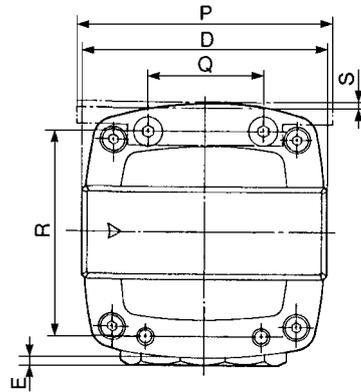
Series AMF

AMF150 to AMF350 Dimensions



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	Dimensions with mounting bracket											
									H	I	J	K	L	M	N	O	P	Q	R	S
AMF150	1/8, 1/4, 3/8	139	13	55	63	7.5	63	10	146	56	15	5	9	5.5	35	54	70	26	4.5	1.6
	1/4, 3/8	152	13	66	76	4	76	10	167	66	20	8	12	6	40	66	84	28	5	2.0
AMF250	1/2	158	16	72	76	4	76	10	167	66	17	8	12	6	40	66	84	28	5	2.0
	3/8, 1/2	184	16	92	90	5	90	10	198	80	22	8	14	7	50	80	100	34	5	2.3
AMF350	3/4	190	19	98	90	5	90	10	198	80	19	8	14	7	50	80	100	34	5	2.3

AMF450 to AMF850 Dimensions



Model	Port size (Nominal size B)	A	B	C	D	E	F	G	H	Dimensions with mounting bracket										
										I	J	K	L	M	N	O	P	Q	R	S
AMF450	1/2, 3/4	205	19	100	106	3	106	10	36	221	25	10	14	9	90	55	110	50	88	3.2
	1	212	22	107	106	3	106	10	36	221	21	10	14	9	90	55	110	50	88	3.2
AMF550	3/4, 1	239	22	128	122	3	122	10	44	257	30	10	16	9	100	65	130	60	102	4.5
AMF650	1, 1 1/2	291	32	167	160	—	160	10	66	314	40	15	20	11	150	85	180	76	136	4.5
AMF850	1 1/2, 2	403	42	235	220	—	220	10	96	406	30	15	24	13	180	120	220	110	184	6

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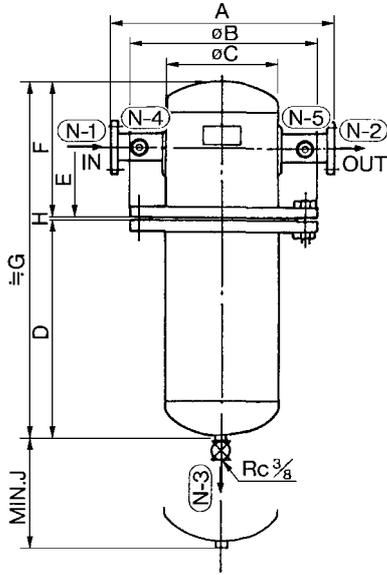
AM

Misc.

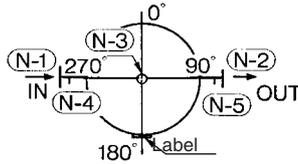
Series AMF

AMF801/901/800/900/1000 Dimensions

AMF801/901

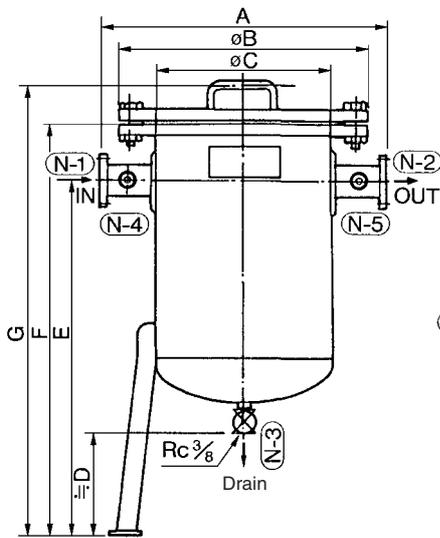


ORIENTATION

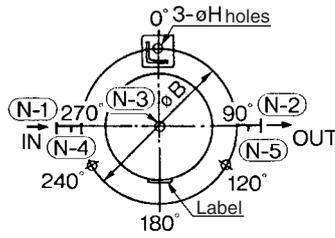


Model	Connection (Flange)	A	øB	øC	D	E	F	G	H	J
AMF801	2 ^B	400	280	6B	550	150	270	823	3	797
AMF901	2 ^B , 3 ^B , 4 ^B	620	445	12B	570	300	520	1093	3	867

AMF800/900/1000



ORIENTATION



Model	Connection (Flange)	A	øB	øC	D	E	F	G	H	Anchor bolt
AMF800	2 ^B	500	330	8 ^B	300	1070	1200	1290	20	M16 x 400
AMF900	2 ^B , 3 ^B , 4 ^B	720	560	400	300	1070	1230	1335	24	M20 x 500
AMF1000	4 ^B , 6 ^B	870	745	550	300	1090	1320	1450	24	M20 x 500

Related Products: Auto Drain Valve AD402/600

Drainage is automatically discharged in a reliable manner, without requiring human operators.

Highly resistant to dust and corrosion, operates reliably, and a bowl guard is provided as standard equipment.



JIS Symbol



Model/Specifications

Model	AD402	AD600
Proof pressure	1.5 MPa	1.5 MPa
Max. operating pressure	1.0 MPa	1.0 MPa
Operating pressure range ^{Note)}	0.1 to 1.0 MPa	0.3 to 1.0 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)	-5 to 60°C (No freezing)
Port size	Rc 1/4, 3/8, 1/2	Rc 3/4, 1
Drain discharge port size	3/8	3/4, 1
Weight (g)	620	2100



Note) Use for air compressor with flow larger than 400 l/min (ANR).

Option Specifications

Metal bowl	AD402-□-2	—
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⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 14-14-6 to 8 for Precautions on every series.

Selection

⚠ Warning

- Use auto-drain under the following operating conditions, or it will lead to malfunctions.
 - Operate the compressor above 3.7 kw {400 l/min (ANR)}.
 - Use AD402 at an operating pressure above 0.1 MPa and AD600 above 0.3 MPa.

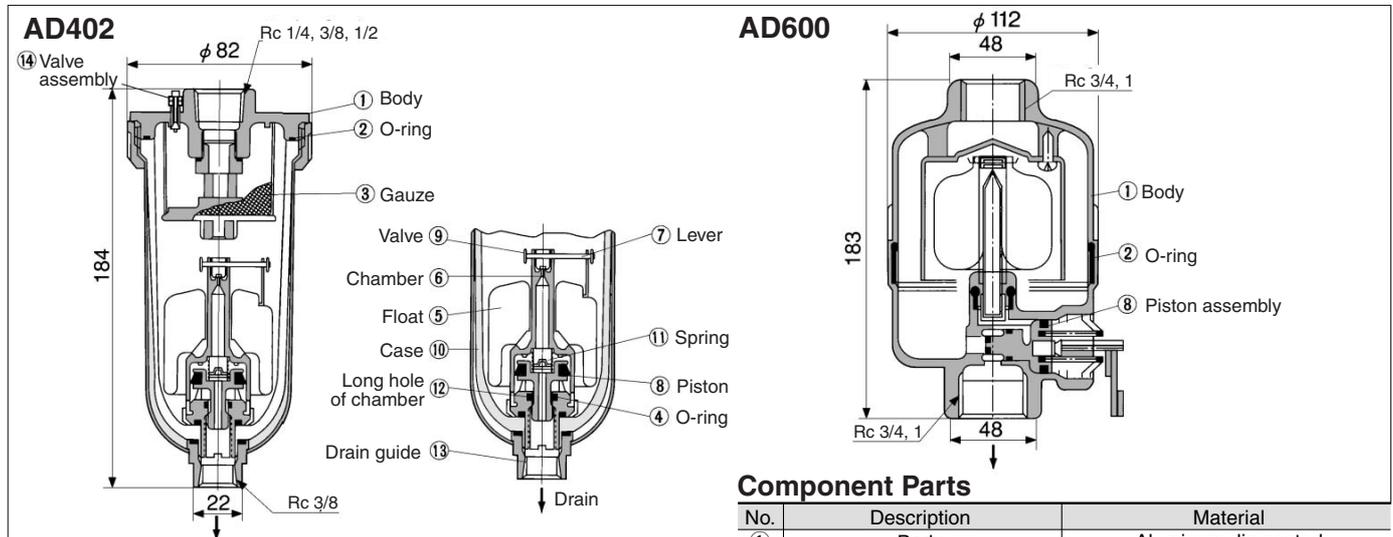
Piping

⚠ Warning

- Use auto-drain under the following operating conditions, or it will lead to malfunctions.

To connect a drain discharge pipe, use a pipe with a minimum bore of $\phi 10$, and a maximum length of 5 m. Avoid using a riser pipe.

Construction/Dimensions



• Working principle (AD402)

- When no pressure is applied internally to bowl ⑩, float ⑤ descends of its own weight and valve ⑨ closes chamber hole ⑥. Piston ⑧ is pushed down by spring ⑪, and the drainage passes through the chamber's elongated hole ⑫ to enter the housing and is discharged.
- When pressure is applied internally to the bowl: When pressure is larger than 1 MPa, it overcomes the force of spring ⑪, allowing piston ⑧ to ascend, and comes in contact with O-ring ④. Thus, the inside of bowl ⑩ is isolated from the outside.
- When drainage has accumulated: Float ⑤ ascends due to flotation and opens the chamber's hole ⑥, allowing the pressure to enter chamber ⑥. Piston ⑧ descends due to the force of the internal pressure and spring ⑪, and the accumulated drainage is discharged through drain guide ⑬.

Component Parts

No.	Description	Material
①	Body	Aluminum die-casted

Replacement Parts

No.	Description	Material	Model	
			AD402	AD600
②	O-ring	NBR	113136	JIS B 2401G-100
③	Gauze	Stainless steel	20062	—
(1)	Internal assembly	—	AD34PA	—
⑧	Piston assembly	—	—	20025A
⑭	Valve assembly	—	201037P	—

Note 1) Internal assembly: Assembly for parts ④ to ⑫ except ⑩.

Note 2) Part no. for bowl assembly: AD34

Note 3) Part no. for bowl ⑩: 201016

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Misc.

Related Products: Motor Operated Auto Drain Series ADM200

Reliably discharges even highly viscous drainage

Highly resistant to dust and highly viscous drainage, the valve opens and closes reliably to discharge the drainage.

Large drain discharge capacity

With a large discharge port, a large amount of drainage can be discharged in a single operation.

Elimination of residual drainage from inside of the tank and pipes prevents the generation of foreign matter as a result of dried rust or drainage, which could adversely affect the equipment located on the outlet side.

Low power consumption: 4 W

A long pipe can also be connected to the discharge port.

It can be connected directly to a compressor.



How to Order

ADM200-□□-□

Port size

Symbol	IN	OUT
03	3/8	3/8
04	1/2	3/8

Voltage

1	100 VAC 50/60 Hz
2	200 VAC 50/60 Hz
3	240 VAC 50/60 Hz
4	110 VAC 50/60 Hz
5	220 VAC 50/60 Hz
6	24 VDC
7	12 VDC

Operating time/

Applicable compressor

Nil	2 sec/min (1 cycle/min) /3.7 to 37 kW
4	4 sec/min (2 cycle/min) /37 to 75 kW
6	6 sec/min (3 cycle/min) /75 to 110 kW
8	8 sec/min (4 cycle/min) /220 to 370 kW

Model/Specifications

Model	ADM200-□□-□
Fluid	Air
Max. operating pressure	1.0 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Operating cycle*	1 cycle in a minute (Standard)
Operating time	2 sec./cycle (Standard)
Power source	100, 200 VAC 50/60 Hz, Other
Power consumption	4 W
Port size	IN: Rc 3/8, 1/2 OUT: Rc 3/8
Weight	550 g

* If the operating cycle is twice in a minute (op. time 2 sec. x 2) operating time is 4 sec. each minute.

⚠ Precautions

Be sure to read before handling.
Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 14-14-6 to 8 for Precautions on every series.

Mounting

⚠ Warning

1. Install this product after discharging the drainage that has already accumulated in

the tank. Failure to observe this precaution could lead to malfunctions.

2. Install this product, so that its drain port faces down. Failure to observe this precaution could lead to malfunctions.

⚠ Caution

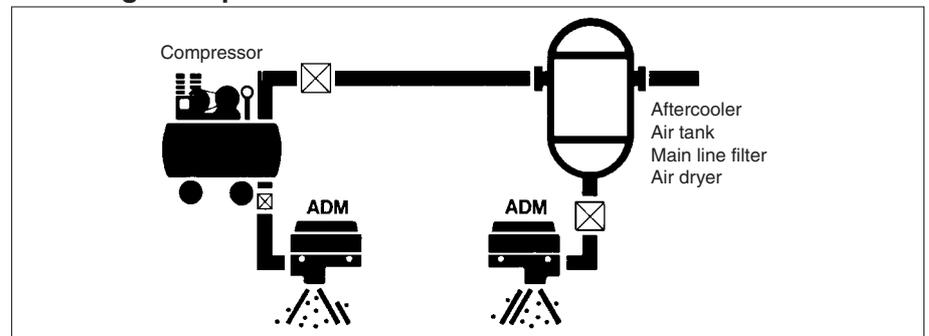
1. Provide a stop valve before ADM200 to facilitate maintenance and inspection.

Maintenance

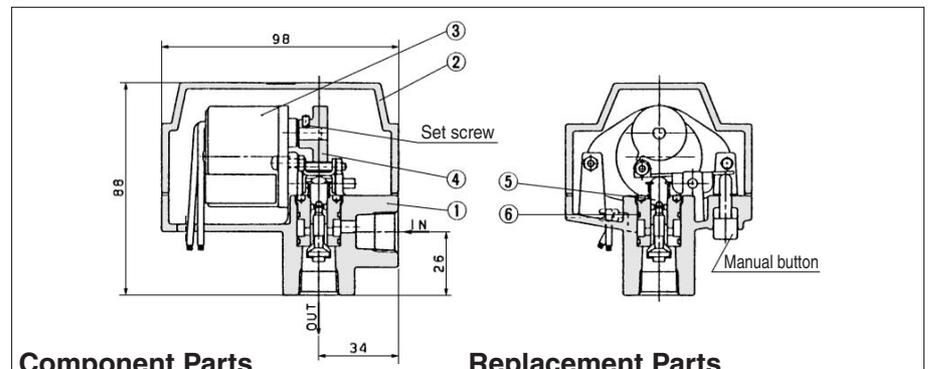
⚠ Caution

1. If the valve becomes clogged with debris, press the manual button to flush out the debris. Failure to observe this precaution could lead to malfunctions.

Mounting Example



Construction/Dimensions



Component Parts

No.	Description	Material	Note
①	Body	ADC12	Chrome treated
②	Cap	ADC12	Chrome treated

Replacement Parts

No.	Description	Material	Part no.
③ ^{Note)}	Motor	—	812PG-voltage
			Operating time 201324 (Nil) 201325 (4) 201326 (6) 201327 (8)
④	Cam	SCS13	
⑤	Valve assembly	C3604B	20137-1A
⑥	O-ring	NBR	S-16

Note) Motor port no. in the case of 100 VAC: 812PG-100VAC

Related Products: Heavy Duty Auto Drain Series *ADH4000*

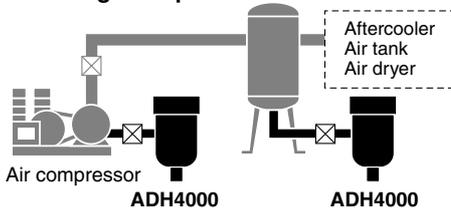
Easy maintenance

It is possible to maintain without changing existing piping.

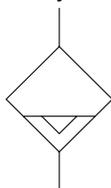
No need for electric power and no waste of air.

Float style drain allows automatic drain discharge without electric power.

Mounting example



JIS Symbol



Specifications

Auto-drain type	Float type
Auto-drain valve type	N.O. (Normally open: Open in the case of pressure loss)
Proof pressure	2.5 MPa
Max. operating pressure	1.6 MPa
Operating pressure range ^{Note)}	0.05 to 1.6 MPa
Fluid ^{Note)}	Compressed air
Ambient and Fluid temperature	5 to 60°C (With no condensation) <Corrosive gas, flammable gas and organic solvents are not allowed.>
Max. drain discharge	400 cc/min (Pressure 0.7 MPa, in the case of water)
Weight	1.2 kg (With bracket: 1.3 kg)
Paint color	Light gray



Note) Use for air compressor with flow more than 50 ℓ/min (ANR).

Accessory (Option)

Description	Part no.	Contents
Bracket set	BM58	Bracket 1 pc. M6 x 10ℓ (Hex. bolt) 2 pcs.
Ball valve piping set	ADH-C400	Ball valve/Rc 1/2 1 pc. Barrel nipple/R 1/2 2 pcs. Elbow/Rc 1/2 1 pc.



Note) The accessories (Option) are shipped unassembled, but packed in the same container.

How to Order

ADH4000 — **04** **04**

Heavy duty auto-drain

Basic size

Thread type

Nil	Rc
F	G
N	NPT

Port size

04	1/2 (Female thread)
----	---------------------

Accessory (Option) *

Nil	No option (Standard)
B	Bracket set
C	Ball valve piping set

* Notes

- 1) When more than one option is desired, list in alphabetical order.
- 2) Accessories are not factory assembled.
- 3) Refer to each drawing for details of dimensions and mounting methods.
- 4) Accessory "C" is available only with Rc thread.

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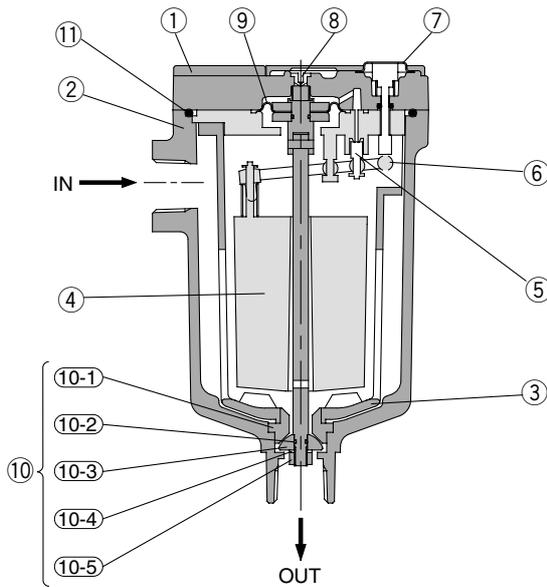
AFF

AM

Misc.

Series ADH4000

Construction



Component Parts

No.	Description	Material	Note
①	Body	Aluminum alloy	Baking finish
②	Housing	Aluminum alloy	Baking finish
③	Drain guard	Aluminum alloy	Baking finish
④	Float	Foam rubber	
⑤	Pilot valve	Stainless steel + Rubber	
⑥	Lever	Resin	
⑦	Flushing button	Brass	
⑧	Orifice		
⑨	Diaphragm	Rubber	

Replacement Parts

No.	Description	Part no.	Note
⑩	Repair kit for main valve	ADH-D400	Kit includes parts from 10-1 to 10-5.
⑪	O-ring	G85(B)	Material: NBR

Note) When changing parts, follow the instruction manual.
Do not disassemble other parts.

⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and pages 14-14-6 to 8 for Precautions on every series.

Caution on Design

⚠ Caution

1. Operate this product in an area in which the air pressure does not exceed 1.6 MPa. If this value is exceeded, it could lead to an accident or malfunction.
2. An air pressure of 0.05 MPa and an air compressor's discharge flow rates higher than 50 l/min (ANR) are required. Below these values, the air will continue to be discharged from the drainage discharge port.
3. Keep the compressed air temperature and the ambient temperature of the location in which this product is installed within the range of 5 to 60°C. Exceeding this range could lead to failure or malfunction.
4. Avoid operating this product in an area in which corrosive gases, flammable gases or organic solvents are contained in the compressed air or in the surrounding air.

Selection

⚠ Caution

1. The maximum dischargeable drainage rate is 400 cc/min. If the product is operated in excess of this value, there is a risk of causing the drainage to flow over to the outlet side.

Piping

⚠ Caution

1. Use piping of 1/2B bore size or larger for drain inlet and allow for unobstructed flow-in for drain.
2. Drain line should be 8 mm or more in diameter and less than 10 m in length. Do not make any upward angles in drain line. Be sure to secure exhaust port piping since drain is under pressure.

Mounting

⚠ Caution

1. Install with "out port" down in a vertical position. Inclination from the vertical line should be less than 5°.
2. Install with at least 200 mm of free space above the unit to allow for maintenance.
3. To place this product near the air compressor, install in such a way that the vibrations will not be transmitted.
4. Install a valve to drain inlet so that maintenance is possible. Use a ball valve with a bore size of more than 15 mm to ensure proper flow-in of drain. (Ball valve piping set is available as optional accessory.)
5. When not draining sufficiently, adjust the open angle of its bleed valve to lower the pressure inside the case, so that drainage will run through easily.

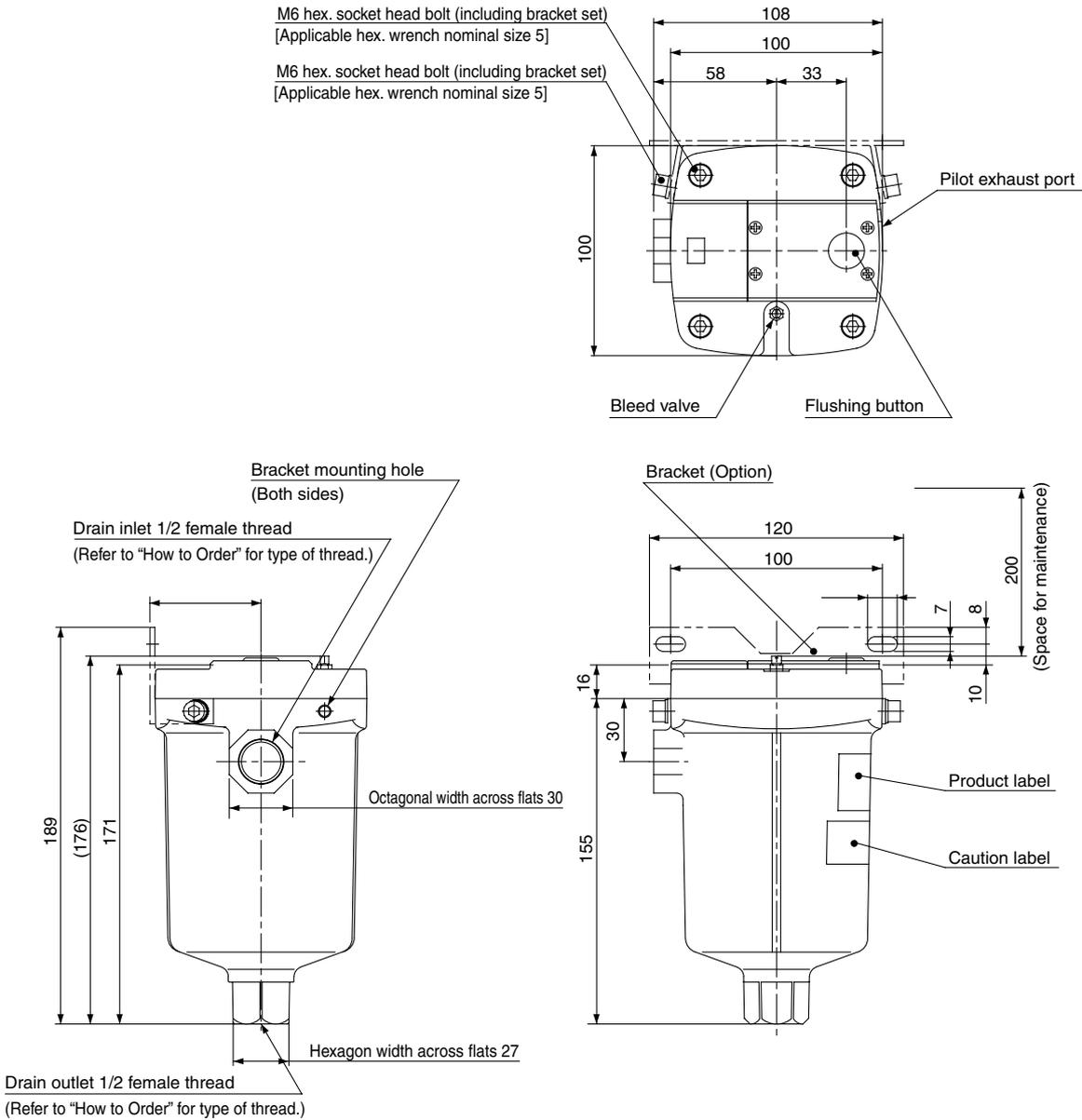
Maintenance

⚠ Caution

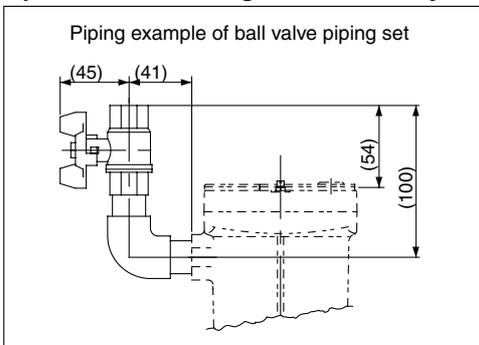
1. Check drain condition periodically (more than once a day). Then push flushing button to open exhaust valve.
2. Pilot air is exhausted from the exhaust port indicated in the "Dimensions" section. Do not cover this exhaust port. Clean exhaust port so that port is not blocked by dust, etc.
3. When solid foreign objects exceeding 1 mm comes in, the main valve may become blocked. After recovering the internal pressure of this product to 0 MPa (atmospheric pressure), remove the hexagon socket head bolt (M6) from the body part and wash inside with water to remove foreign solid particles blocking the main valve.
4. While operating, there may be cases where drainage will not easily enter this product. In such a case, adjust the open angle of its bleed valve to lower the pressure a bit inside the bowl, so that drainage will run through easily.

Heavy Duty Auto drain Series ADH4000

Dimensions



Option: Reference Figure of Assembly



- HA
- AT
- ID
- AMG
- AFF
- AM
- Misc.

Related Products: Pressure Differential Gauge GD40-2-01

The pressure differential at the inlet and the outlet of compressed air equipment can be viewed at a glance on the pressure differential gauge. It is ideal for the maintenance control of filters.

Compact and lightweight
It can be installed easily by merely providing a bypass circuit.
Provided with a protective cover to prevent hazards.

Model/Specifications

Model	GD40-2-01
Fluid	Compressed air
Max. operating pressure	1 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Port size Rc	1/8
Scale range	0 to 0.2 MPa
Accuracy	±0.006 MPa
Dial size	40
Weight (g)	300

Principal Parts Material

Case	Zinc die-casted
Internal part	Brass, Phosphor bronze
Window	Chloroethylene
Pointer scale	Stainless steel

Option Accessory

Nylon tube	T0425 (0.5 m)
Half union	H04-01 (1 pc.)
Elbow union	DL04-01 (1 pc.)



JIS Symbol



⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to 14-14-6 to 8 for precautions on every series.

Caution on Design

⚠ Caution

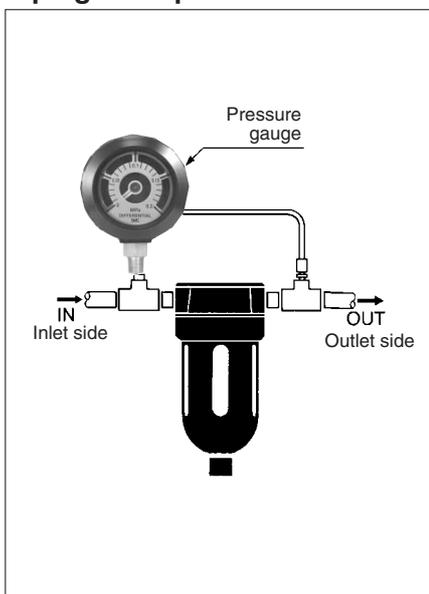
1. This product cannot be operated in a location in which pulsations frequently occur.

Mounting

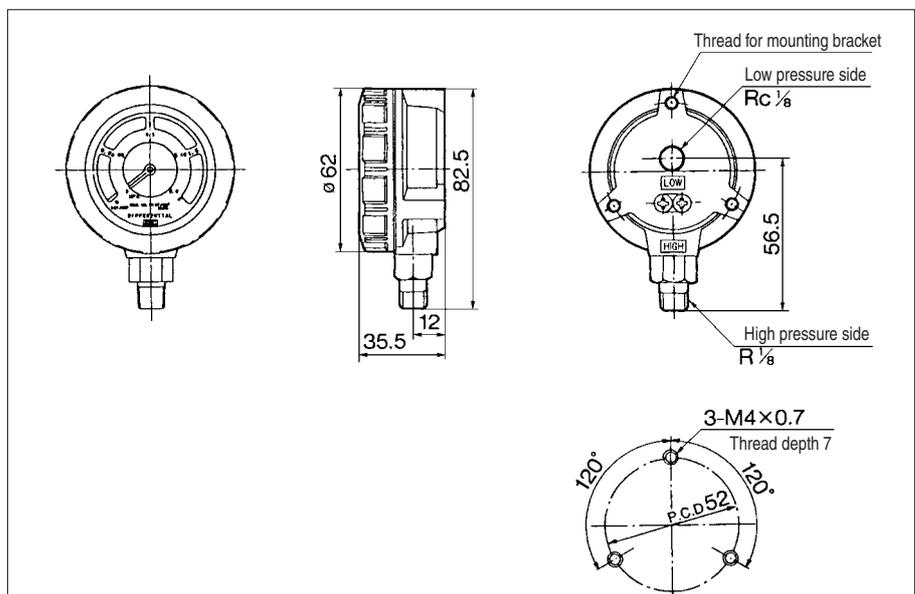
⚠ Caution

1. Mounting
 - 1) The HIGH and LOW marks on the back of the differential pressure gauge indicate the high pressure and low pressure sides, respectively. Connect the HIGH side to the inlet side of the filter or other devices and the LOW side to their outlet side. Do not use a stop valve to prevent damage to the differential pressure gauge if the valve is inadvertently left open or closed.
 - 2) Install the differential pressure gauge vertically.
 - 3) The piping of the differential pressure gauge must be connected securely because it will break if it becomes detached.

Piping Example



Dimensions



Water Separator, Oil Mist Separator, Deodorizer

Made to Order Specifications:

Please consult with SMC for detailed specifications, size and delivery.

1. With Differential Pressure Gauge (GD40-2-01)

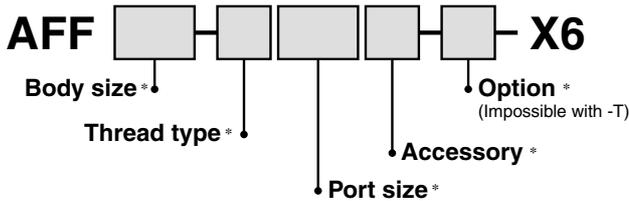
A differential pressure gauge that keeps track of the filter life is installed on the filter itself.

This facilitates piping and achieves a compact design.

Specifications

Applicable model	AFF2B to 75B
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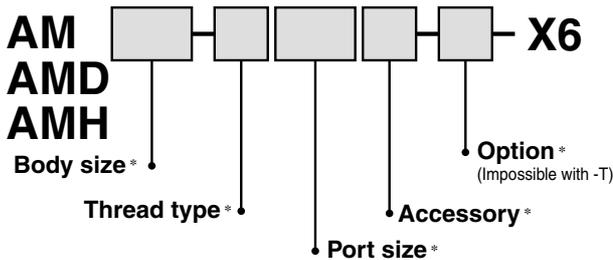
How to Order * Refer to "How to Order" for standard specifications on page 14-20-10.



Specifications

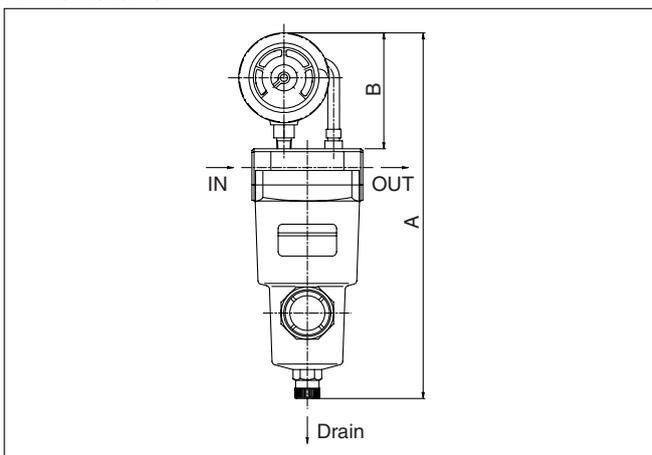
Applicable model	AM, AMD, AMH150 to 850
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How to Order * Refer to "How to Order" for standard specifications on pages 14-20-16, 23 and 31.



Note) Series AMG is not applicable since there may be cases where water drops ingress inside its differential pressure gauge, resulting in malfunction or damage to the product.

Dimensions



Series AFF	Series AM, AMD, AMH	Port size	A	B
Size	Size			
2B	150	1/8, 1/4, 3/8	239	80
4B	250	1/4, 3/8	252	80
		1/2	258	
8B	350	3/8, 1/2	284	80
		3/4	290	
11B	450	1/2, 3/4	305	80
		1	312	
22B	550	3/4, 1	339	80
37B	650	1, 1 1/2	391	80
75B	850	1 1/2, 2	540.5	80

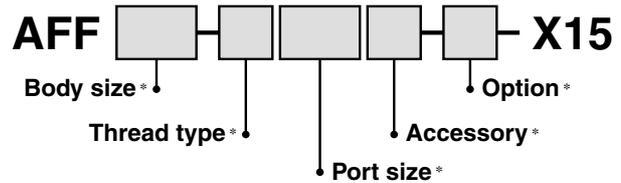
2. With IN-OUT Flange

Makes flange piping easier. (Flange material: Carbon steel)

Specifications

Applicable model	AFF11B to 75B
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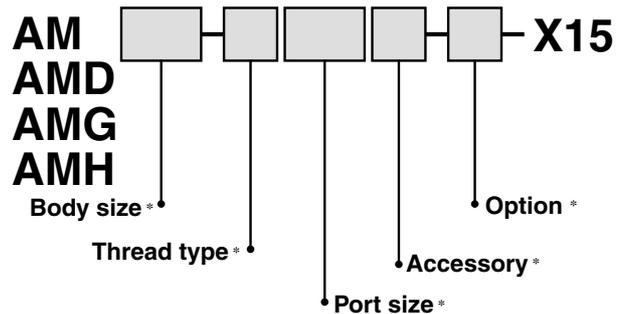
How to Order * Refer to "How to Order" for standard specifications on page 14-20-10.



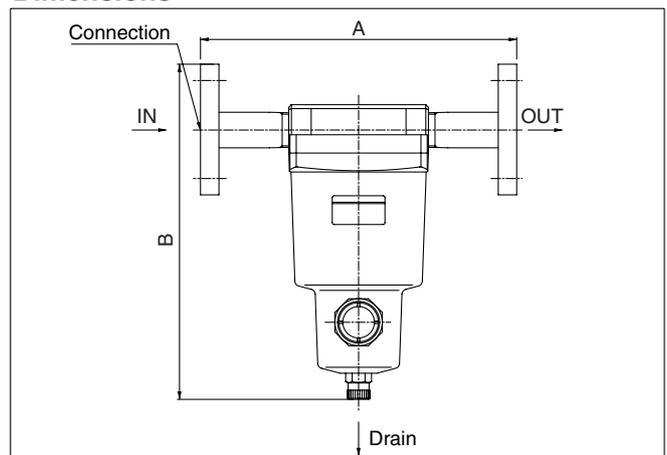
Specifications

Applicable model	AM, AMD, AMH450 to 850
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How to Order * Refer to "How to Order" for standard specifications on pages 14-20-3, 16, 23, and 31.



Dimensions



Series AFF	Series AM, AMD, AMG, AMH	Connection	A	B
Size	Size			
11B	450	3/4B, FF, 10K	240	256
22B	550	1B, FF, 10K	260	300
37B	650	1 1/2B, FF, 10K	300	349
75B	850	2B, FF, 10K	380	496.5

HA

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AMG

AFF

AM

Misc.

Water Separator, Oil Mist Separator, Deodorizer

Made to Order Specifications:

Please consult with SMC for detailed specifications, size and delivery.

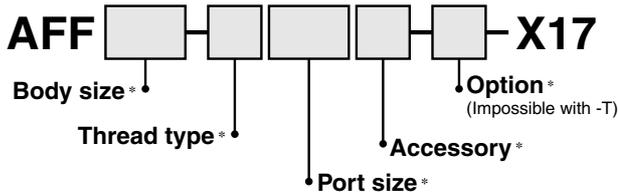
3. With Differential Gauge (GD40-2-01), IN/OUT Flange

This is the type, on which a differential pressure gauge is mounted on the main body to monitor the life of a filter by checking its clogging status. Ports on IN and OUT are of a flange connection type. (Flange material: Carbon steel)

Specifications

Applicable model	AFF11B to 75B
------------------	----------------------

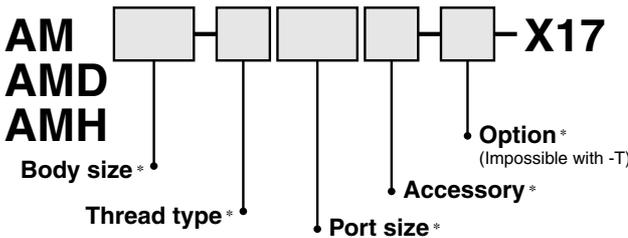
How to Order * Refer to "How to Order" for standard specifications on page 14-20-10.



Specifications

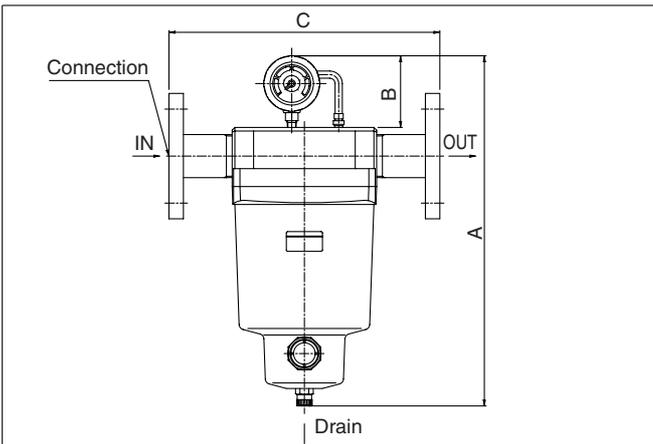
Applicable model	AM, AMD, AMH450 to 850
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How to Order * Refer to "How to Order" for standard specifications on pages 14-20-16, 23 and 31.



Note) Series AMG is not applicable since there may be cases where water drops ingress inside its differential pressure gauge, resulting in malfunction or damage to the product.

Dimensions



Series AFF	Series AM, AMD, AMH	Connection	A	B	C
Size	Size				
11B	450	3/4B, FF, 10K	305	80	240
22B	550	1B, FF, 10K	339		260
37B	650	1 1/2B, FF, 10K	391		300
75B	850	2B, FF, 10K	540.5		380

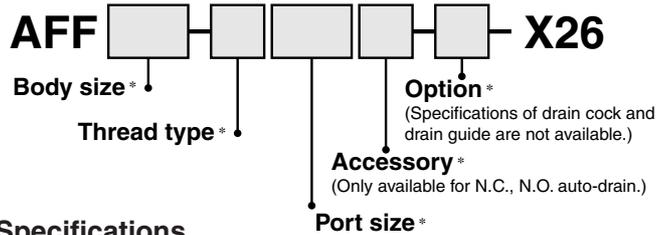
4. N.C., N.O. Auto-drain, Drain Piping Type

This is the drain piping type (drain guide specification), which can connect the drain piping on the part of discharging the drain from N.C. auto-drain and N.O. auto-drain.

Specifications

Applicable model	AFF2B to 37B
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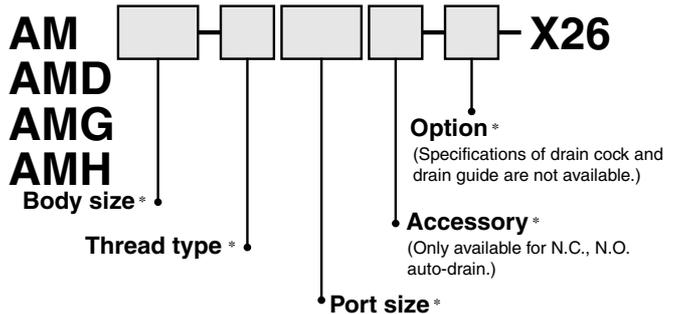
How to Order * Refer to "How to Order" for standard specifications on page 14-20-10.



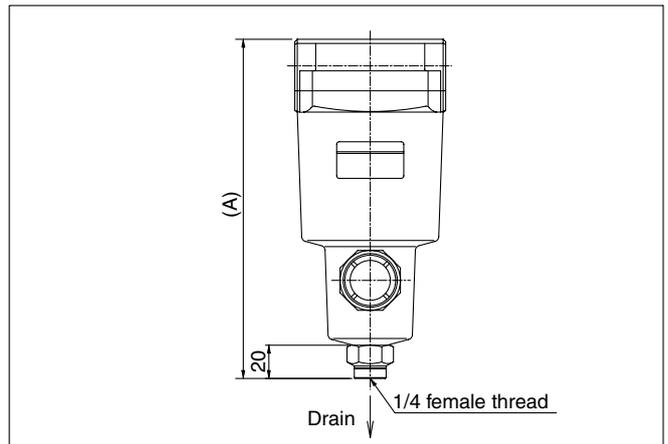
Specifications

Applicable model	AM*150 to 650
------------------	----------------------

How to Order * Refer to "How to Order" for standard specifications on pages 14-20-3, 16, 23 and 31.



Dimensions



Series AFF	Series AM, AMD, AMH	Port size	A
Size	Size		
2B	150	1/8B, 1/4B, 3/8B	159
4B	250	1/4B, 3/8B	172
		1/2B	178
8B	350	3/8B, 1/2B	204
		3/4B	210
11B	450	1/2B, 3/4B	225
		1B	232
22B	550	3/4B, 1B	259
37B	650	1B, 1 1/2B	311

Water Separator, Oil Mist Separator, Deodorizer

Made to Order Specifications:

Please consult with SMC for detailed specifications, size and delivery.

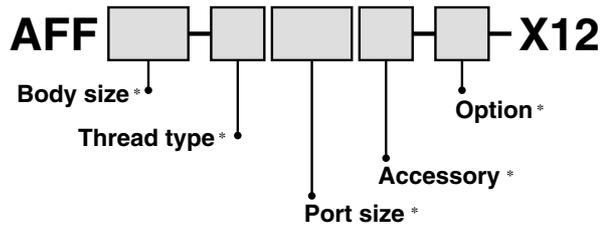
5. White Vaseline Specifications

This is the type which has changed the oil and grease used for O-rings and gaskets as lubricant to white vaseline.

Specifications

Applicable model	AFF2B to 75B
------------------	--------------

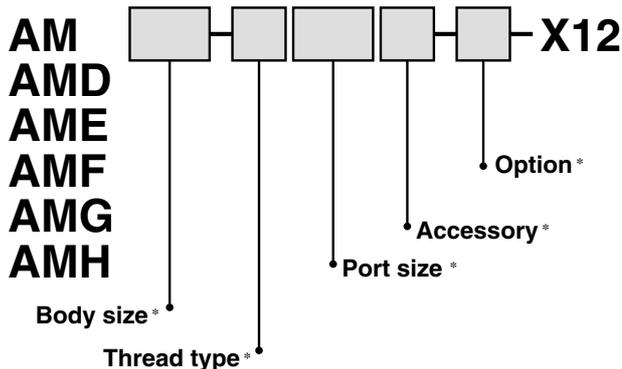
How to Order * Refer to "How to Order" for standard specifications on page 14-20-10.



Specifications

Applicable model	AM, AMD, AME, AMF, AMG, AMH150 to 850
------------------	---------------------------------------

How to Order * Refer to "How to Order" for standard specifications on pages 14-20-3, 16, 23, 31, 37 and 43.



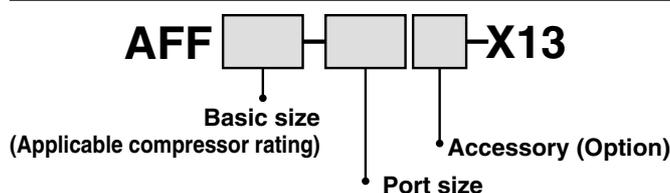
7. Mist Separator for Large Flow (0.3 μm)

Use it when the conventional mist separator (Series AM) cannot dispose of a large flow rate. Specifications other than the filtration are all equivalent to that of AFF75A to 220A.

Specifications

Applicable model	AFF75A to 220A
------------------	----------------

How to Order * Refer to "How to Order" for standard specifications on page 14-20-10.



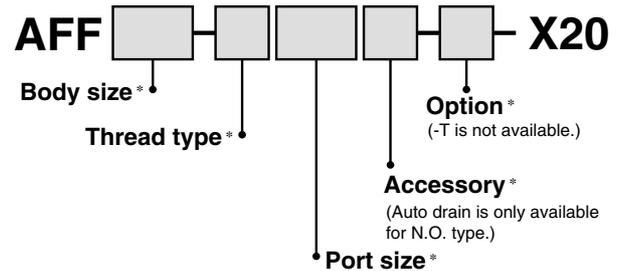
6. Middle Pressure (1.4 MPa) Specifications

Withstands up to 1.4 MPa of maximum operating pressure.

Specifications

Applicable model	AFF2B to 22B
------------------	--------------

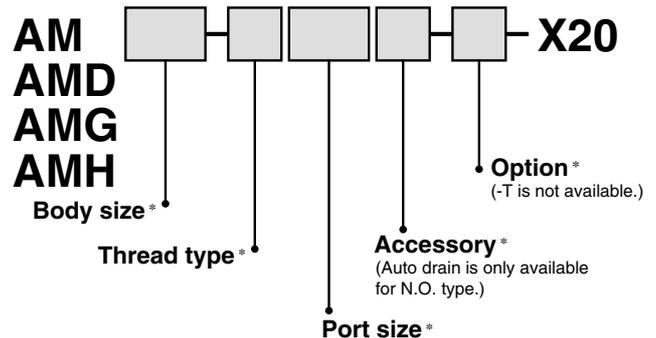
How to Order * Refer to "How to Order" for standard specifications on page 14-20-10.



Specifications

Applicable model	AM, AMD, AMG, AMH150 to 550
------------------	-----------------------------

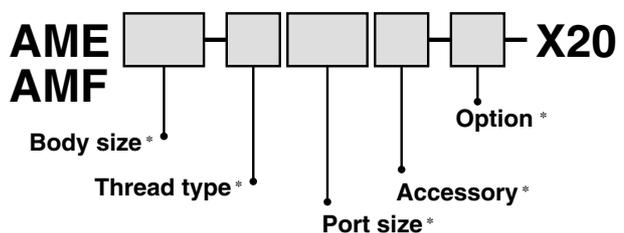
How to Order * Refer to "How to Order" for standard specifications on pages 14-20-3, 16, 23 and 31.



Specifications

Applicable model	AME, AMF150 to 950
------------------	--------------------

How to Order * Refer to "How to Order" for standard specifications on pages 14-20-37 and 43.



HA

AT

ID

AMG

AFF

AM

Misc.

Water Separator, Oil Mist Separator, Deodorizer

Special Specifications:

Please consult with SMC for detailed specifications, size and delivery.

Clean Series (10-Series)

Clean Series products are those which can be used in cleaner environments, such as in clean rooms, as compared to a general factory environment.

For further details, refer to the Clean Series catalog.

Specifications

Applicable model	AFF2B to 75B
------------------	--------------

How to Order * Refer to "How to Order" for standard specifications on pages 14-20-10, 16, 23, 31, 37 and 43.

10-AFF **J**

Body size*
Thread type*
Port size*
Accessory (Note)
Option

(Note) With drain guide

Symbol	Description
Nil	No accessory
B	Bracket

Symbol	Description
R	IN-OUT reversal direction
T	Element service indicator

Note) "10-" is not applicable to the standard type (with drain cock) and products with auto drain.

Specifications

Applicable model	AM, AMD, AMH150 to 850
------------------	------------------------

10-AM
AMD
AMH

Body size*
Thread type*
Port size*
Accessory (Note)
Option

(Note) With drain guide

Symbol	Description
Nil	No accessory
B	Bracket

Symbol	Description
R	IN-OUT reversal direction
T	Element service indicator

Note) "10-" is not applicable to the standard type (with drain cock) and products with auto drain.

Specifications

Applicable model	AME, AMF150 to 850
------------------	--------------------

10-AME
AMF

Body size*
Thread type*
Port size*
Accessory
Option

Symbol	Description
Nil	No accessory
B	Bracket

Symbol	Description
R	IN-OUT reversal direction

Copper-free Series (20-Series)

To eliminate effects on color CRTs, etc. by copper ion or fluorine resin, copper materials are electroless-nickel plated or changed to copper-free materials to prevent the generation of copper ions.

(It is not applicable to Series AMD, AME, AMF and AMH because they include fluorine resin in the filter material of the element.)

Specifications

Applicable model	AFF2B to 37B
------------------	--------------

How to Order * Refer to "How to Order" for standard specifications on pages 14-20-3, 10 and 16.

20-AFF **C**
D

Body size*
Thread type*
Port size*
Accessory
Option

Symbol	Description
Nil	No accessory
B	Bracket

Symbol	Description
R	IN-OUT reversal direction
T	Element service indicator

Note) "20-" is applicable only to products with N.C. auto-drain (C) or N.O. auto-drain (D). Drain cock and drain guide are copper-free as standard.

Specifications

Applicable model	AFF75B
------------------	--------

20-AFF75B

Thread type*
Port size*
Accessory
Option

Symbol	Description
Nil	No accessory
B	Bracket
D	N.O. auto-drain

Symbol	Description
J	Drain guide 1/4B female thread
R	IN-OUT reversal direction
T	Element service indicator

Specifications

Applicable model	AM, AMG150 to 650
------------------	-------------------

20-AM
AMG

Body size*
Thread type*
Port size*
Accessory
Option (Note)

Symbol	Description
Nil	No accessory
B	Bracket

Symbol	Description
R	IN-OUT reversal direction
T	Element service indicator

Note) "20-" is applicable only to products with N.C. auto-drain or N.O. auto-drain. Specifications of drain cock and drain guide are provided as standard to be copper-free.

Specifications

Applicable model	AM, AMG850
------------------	------------

20-AM 850
AMG

Thread type*
Port size*
Accessory
Option

Symbol	Description
Nil	No accessory
B	Bracket
D	N.O. auto-drain

Symbol	Description
J	Drain guide 1/4B female thread
R	IN-OUT reversal direction
T	Element service indicator

Bowl Assembly

Series **AFF-CA**□/AM□-CA□

Bowl Assembly

Bowl assembly for Series AFF and AM□ can be replaced without removing the main body from piping if the drain exhaust specification is to be changed from the drain cock type to the auto-drain type or if the bowl has been damaged.

How to Order Bowl Assembly

■ Series AFF

AFF — CA **4B** □ □

Body size

2B
4B
8B
11B
22B
37B
75B

Accessory (Option)

A	With drain cock ⁽¹⁾
C	With N.C. auto-drain
D	With N.O. auto-drain
J	With drain guide ⁽²⁾

Note 1) 75B size comes with a ball valve.

Note 2) Drain piping, or piping for a stop valve, like a ball valve, is required.
75B size comes with a ball valve. substitute with (Symbol: A).

Thread type ⁽³⁾

Nil	Rc
F	G
N	NPT

Note 3) Corresponds to attachment symbols C, D, and J. Select according to the type of threads used on the body.

■ Series AM, AMD, AMH, AMG

AM — CA **150** □ □
AMD
AMH
AMG

Body size

150
250
350
450
550
650
850

Accessory (Option)

A	With drain cock ⁽¹⁾
C	With N.C. auto-drain
D	With N.O. auto-drain
J	With drain guide ⁽²⁾

Note 1) 850 size comes with a ball valve.

Note 2) Drain piping, or piping for a stop valve, like a ball valve, is required.
850 size comes with a ball valve. substitute with (Symbol: A).

Thread type ⁽³⁾

Nil	Rc
F	G
N	NPT

Note 3) Corresponds to attachment symbols C, D, and J. Select according to the type of threads used on the body.

■ Series AME, AMF

AME — CA **250** — **A**
AMF

Body size

150
250
350
450
550
650
850

HA□

AT

ID□

AMG

AFF

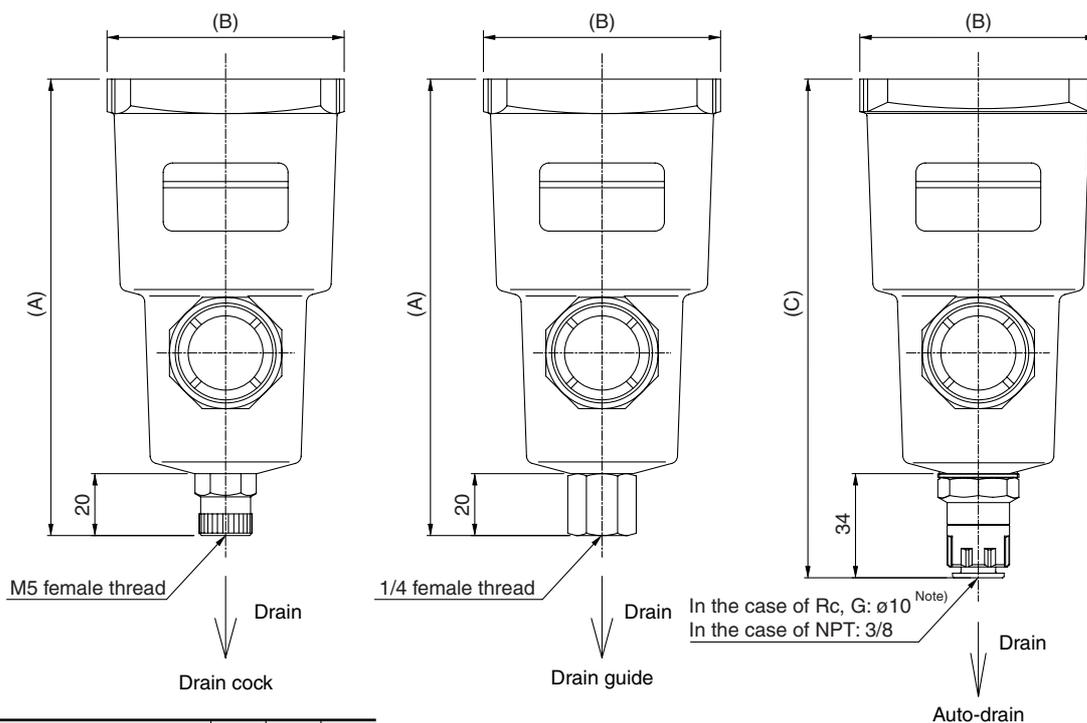
AM□

Misc.

Series **AFF-CA**□, **AM**□-**CA**□

Series **AFF, AM, AMD, AMH, AMG** Dimensions

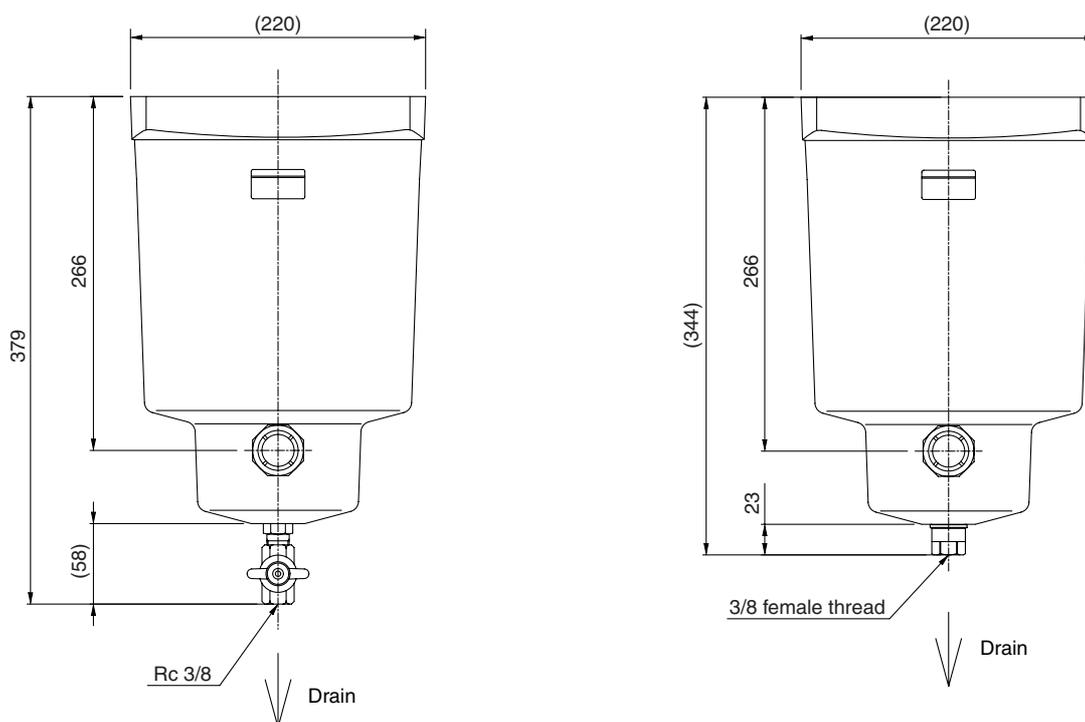
Size: **AFF2B to 37B**, **AM**□150 to 650



Series AFF	Series AM, AMD, AMG, AMH	A	B	C
Size	Size			
2B	150	134	63	148
4B	250	147	76	161
8B	350	173	90	187
11B	450	188	106	202
22B	550	215	122	229
37B	650	245	160	259

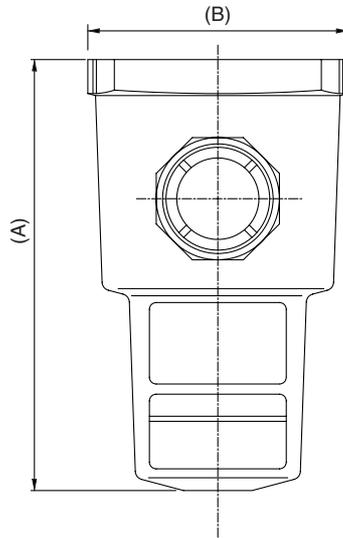
Note) Select in accordance with the type of thread on the main body.
One-touch fitting applicable tube size
In case that the type of thread is Rc, G: $\phi 10$
In case that the type of thread is NPT: $\phi 3/8$

Size: **AFF75B**, **AM**□850



Bowl Assembly Series **AFF-CA**□, **AM**□-**CA**□

Series AME, AMF Dimensions



Series AME, AMF Size	A	B
150	114	63
250	127	76
350	153	90
450	168	106
550	195	122
650	225	160
850	319	220

HA□

AT

ID□

AMG

AFF

AM□

Misc.

⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and pages 14-14-6 to 8 for Precautions on each series.

Caution on Design

⚠ Caution

1. Design the layout so that the mist separator is installed in an area that is less susceptible to pulsations.

The element could be damaged if the difference in the inlet and outlet pressures exceeds 0.1 MPa.

2. Be careful of dust generation by the pneumatic equipment mounted on the outlet side.

When installing pneumatic equipment on the outlet side of Series AM□, dust particles may come off from outlet equipment, which will lower the cleanliness of compressed air. Please consider this impact upon the cleanliness of compressed air when installing pneumatic equipment on the outlet side.

3. About when to use N.C. auto-drain and N.O. auto-drain.

If the normally open (N.O.) auto-drain is used on AFF2B to AFF75B or AM□150 to 850, air may ceaselessly blow out of the drainage discharge area in cases where an air compressor with a small air discharge volume is used since it is designed so that the valve will not close unless the air pressure is 0.15 MPa or higher. Therefore, when using a compressor for 3.7 kW or less, make sure to use the normally closed (N.C.) auto-drain. The minimum operating pressure is 0.15 MPa even with auto-drain.

4. When using the auto-drain, connect the drain piping in the following range:

When AFF2B to AFF37B, AM□150 to 650 with auto-drain are used:

Normally closed (N.C.) } Use tubing O.D. 10 mm and keep the
Normally open (N.O.) } whole length within 5 meters.

When AFF75B and AM□ 850 with auto-drain are used:

Normally open (N.O.): Use a tube with a bore of 9 mm or more and keep the overall pipe length within 2.8 m.

5. Provide a design that prevents back pressure and back flow.

Back pressure or back flow may damage an element.

6. Design not to apply any load on piping of the main body.

In the case of AFF2B to AFF75B and AM□150 to 850

The bracket that is provided with the product is for supporting the product itself. Thus, it cannot support the piping or other items that are connected. If these items need to be supported, provide an additional support.

7. Keep the certificate of Class 2 Pressure Vessel in a safe place.

Products below are subject to Class 2 Pressure Vessel Act. Certificate will be sent 2 to 4 weeks after the shipment of the product.

Main line filter.....AFF220A

Micro mist separator.....AMD900, AMD1000, AMD901

Selection

⚠ Caution

1. About the system composition of purifying compressed air

Compressed air generally contains particulate contaminants as listed below, though there are some variations due to the compressor type and specifications. Please determine the system configuration according to the desired cleanliness of compressed air and application, while referring to the "Air Preparation Equipment Selection Guide" for Series AM□ on page 14-20-3.

[Particulate contaminants in compressed air]

- Water (drainage)
- Dust sucked from ambient air
- Degenerated oil from compressor
- Solid foreign matter such as rust inside piping and oil

2. Select according to the maximum flow consumption.

When compressed air is used for air blow, etc., find the maximum air consumption and then select the size of Series AM□. (If compressed air exceeding the maximum flow rate is supplied, it can result in decline of the cleanliness of compressed air or element damage.)

Mounting

⚠ Caution

1. About the mounting orientation of the products

Make sure to install this product on horizontal piping. If it is installed diagonally, laterally, or upside down, the drainage that is separated by the element will splash to the outlet side.

Piping

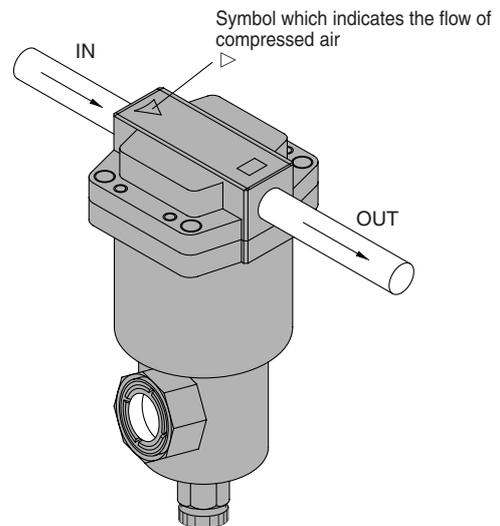
⚠ Caution

1. Connect it with IN and OUT ports in proper location.

It does not work with the connection reversed.

In the case of AFF2B to AFF75B and AM□150 to 850

Verify the direction of the flow of the compressed air and the "▷" mark that indicates the inlet of the product before connecting. It cannot be used if connected in the opposite direction.



In the case of AFF75A to AFF220A, AMD801, 901, 800, 900, and 1000

INLET and OUTLET of compressed air is labeled on the side of flange. Be sure to connect correctly.

2. Use an air blower to flush the piping before connecting the piping.

Use an air blower to thoroughly flush the piping, or wash the piping to remove any cutting chips, cutting oil, or debris from inside the piping before connecting them.

3. Wrapping of sealing tape

When screwing in the pipes or fittings, make sure to prevent cutting chips or the sealing material on the threaded portion of the pipe from entering the piping. If sealing tape is to be used, leave about 1.5 to 2 ridges of threads uncovered.

⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and pages 14-14-6 to 8 for Precautions on each series.

Air Supply

⚠ Caution

1. The mist separator is not applicable to gases other than compressed air.

The mist separator is not applicable to gases other than compressed air (example: oxygen, hydrogen, flammable gas, mixed gas).

2. Do not use compressed air that contains chemicals, organic solvents, salt, or corrosive gases.

Do not use compressed gas containing chemicals, organic solvents, salt or corrosive gas. This can cause rust, damage to rubber and resin parts, or malfunction.

3. Operate within the specified operating pressure range.

Damage, failure, or malfunction may occur if the mist separator is operated above the maximum operating pressure.

If the mist separator is used below the minimum operating pressure, increase in the air-flow resistance due to clogging will have such influence that the desired flow rate cannot be obtained.

Operating Environment

⚠ Caution

1. Do not use in the following environments, as this can cause failure.

- 1) In locations having corrosive gases, organic solvents, and chemical solutions, or in locations in which these elements are likely to adhere to the equipment.
- 2) In locations in which salt water, water, or water vapor could come in contact with the equipment.
- 3) In locations that is exposed to shocks and vibrations.

2. Be careful about the contamination of the workpieces due to entrainment of the ambient air.

If compressed air is used for air blow, compressed air blowing out from the blow nozzle may entrain foreign matter (solid particles and liquid particles) floating in the ambient air, blowing it against the workpieces and causing adhesion. Therefore, sufficient precautions must be taken about the ambient environment.

Maintenance

⚠ Caution

1. Replace the element immediately when the time for its replacement has arrived.

To replace the element, please also replace the O-ring and the gasket. For the replacement procedure, please refer to the instruction manual.

(For the element dimensions, please refer to page 14-20-64.)

<Element replacement>

In the case of AFF2B to AFF75B or AMI150 to 850

The replacement interval for the element is when the pressure drop reaches 0.1 MPa or after two years of operation, whichever comes first. A pressure drop can be verified with the type with a clogging checker (-T) or with the type with pressure differential gauge (Made to Order Specification).

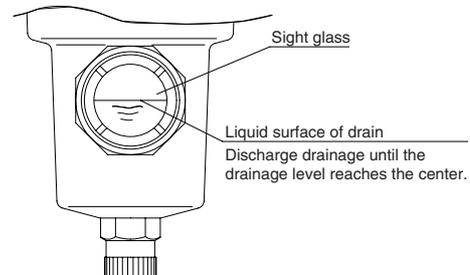
In the case of AFF75A to AFF220A, AMD800 to AMD1000, or AMD801, 901

The replacement interval for the element is when the pressure drop reaches 0.1 MPa or after one year of operation, whichever comes first. Please confirm the pressure drop with a pressure gauge. (Type with pressure gauge: -G)

2. Be sure to exhaust the drain accumulated in the filter container.

Failure to discharge the drainage will allow the accumulated drainage to flow over to the outlet side.

When using AFF2B to AFF75B or AM□150 to 850 with drain cock, drain guide or ball valve, discharge the drainage before the drainage level reaches the center of the sight glass. If the drainage is not discharged properly, it will flow over to the outlet side.

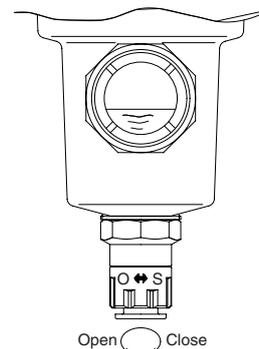


3. In the case of a type with auto drain, the drain can be discharged manually.

In the case of AFF2B to AFF37B and AM□150 to 650, the drain is automatically discharged with the knob tightened to the S side. Manual drain discharge, however, is also possible.

<Manual operation>

A manual knob attached to the auto-drain end is tightened to the "S" side in normal operation. The drainage can be discharged by loosening it to the "O" side. (Be careful, however, if pressure remains inside the filter when the drain is discharged, the drain will blow out from the drain port.)



4. It is not possible to replace the auto-drain alone. The entire bowl assembly must be replaced (except sizes 75B and 650).

Auto-drains of sizes 2B to 37B and 150 to 650 cannot be replaced alone since they cannot be assembled without dedicated assembly tools. The entire bowl assembly must be replaced. (Refer to "How to Order Bowl Assembly" on page 14-20-59.)

5. The drainage exhaust section can be replaced alone on the following types:

- 1) Drain cock (2B to 37B, 150 to 650), drain guide (2B to 37B, 150 to 650), and ball valve set (75B, 850) can be replaced alone.

Please place an order using part numbers below.

Product name	Part no.	Applicable body size
Drain cock	AM-SA002	2B to 37B, 150 to 650
Drain guide	AM-SA003	
Ball valve set	AM-SA004	75B, 850

- 2) The auto-drain can be replaced alone on sizes 75B and 850. However, auto-drain replacement requires dedicated tools.

Product name	Model	Applicable body size
Auto-drain	AD43PA-D	75B, 850
Jig for replacing auto-drain	AM-SA005	

HA□

AT

ID□

AMG

AFF

AM□

Misc.

Other

⚠ Caution

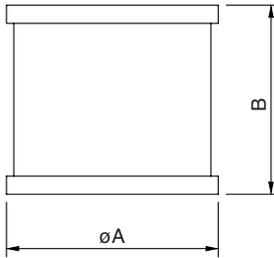
1. Element interchange

Following is the element dimensions for Series AFF and Series AM□:

Since elements for the same body size has the same dimensions, they are interchangeable.

However, do not interchange them easily since it can cause various kinds of problems.

If interchanging the elements is unavoidable, please also replace the product label with the model number.



Dimensions of Element

Model	Dimensions of element (Reference value)	
	øA	B
AFF2B, AM150 AMD150, AMH150	49	42
AFF4B, AM250 AMD250, AMH250	58	52
AFF8B, AM350 AMD350, AMH350	70	78
AFF11B, AM450 AMD450, AMH450	82	88
AFF22B, AM550 AMD550, AMH550	96	118
AFF37B, AM650 AMD650, AMH650	122	144
AFF75B, AM850 AMD850, AMH850	142	223

2. About oil-free products

Series AFF and Series AM□ includes parts that does not allow degreasing wash (resin parts, rubber parts, and elements). Therefore, oil-free product with all parts degreased is not available.

3. Degreasing wash

Certain parts that allow degreasing wash, such as the body and housing, can be washed for degreasing. Please contact SMC after making explicit specifications (available as made-to-order specifications).

4. Change of oil

On Series AFF and Series AM□, no oil such as grease is applied to parts exposed to compressed air. However, for certain specifications, there are some parts to which oil is applied.

It is possible to change the type of oil applied.

(Available as made-to-order)

5. Internal volume of filter container

The product can be used as a small capacity air tank by removing the element.

Following is the volume of filter containers of Series AFF and Series AM□ (when the element is removed).

Volume Inside Filter

Model	Volume inside filter (Reference value) (cm ³)
AFF2B, AM150 AMD150, AMH150	250
AFF4B, AM250 AMD250, AMH250	300
AFF8B, AM350 AMD350, AMH350	600
AFF11B, AM450 AMD450, AMH450	1000
AFF22B, AM550 AMD550, AMH550	1500
AFF37B, AM650 AMD650, AMH650	3000
AFF75B, AM850 AMD850, AMH850	9000

Information on Items to be Discontinued and Equivalent Products

Series AFF and AM□ were remodeled to products introduced in this catalog in 1988.

Along with the new models, old models have also been provided mainly for the purpose of maintenance. However, due to the aging of metal dies and extreme decline in the quantity, the procurement of parts and consequently the maintenance of the production system have become difficult. For this reason, old parts were discontinued in 1994, as detailed in the table below. Please use the equivalent parts listed there.

Discontinued Products and Equivalent Products

Product name	Discontinued				Product equivalent		Page
	Model	Period of production discontinuance	Period of production discontinuance Component parts for maintenance	External dimension of a product Width x Depth x Height	Model	External dimension of a product Width x Depth x Height	
Main Line Filter	AFF6	End of July '94	End of March '99	100 x 100 x 253	AFF4B	76 x 76 x 178	14-20-9
	AFF22	End of July '94	End of March '99	150 x 140 x 446	AFF22B	122 x 122 x 259	
	AFF37	End of July '94	End of March '99	200 x 170 x 526	AFF37B	160 x 160 x 311	
	AFF55	End of July '94	End of March '99	280 x 280 x 497	AFF75B	220 x 220 x 461	
Mist Separator	AM200	End of July '94	End of March '99	63 x 63 x 191	AM150	63 x 63 x 159	14-20-16
	AM300	End of July '94	End of March '99	85 x 85 x 258	AM250	76 x 76 x 172 (178)	
	AM400	End of July '94	End of March '99	120 x 120 x 236	AM350	90 x 90 x 204 (210)	
	AM500	End of July '94	End of March '99	140 x 140 x 383	AM550	122 x 122 x 259	
	AM600	End of July '94	End of March '99	180 x 170 x 465	AM650	160 x 160 x 311	
Micro Mist Separator	AMD100	End of July '94	End of March '99	63 x 63 x 136	AMD150	63 x 63 x 159	14-20-22
	AMD200	End of July '94	End of March '99	80 x 82 x 170	AMD250	76 x 76 x 172 (178)	
	AMD300	End of July '94	End of March '99	90 x 90 x 233	AMD350	90 x 90 x 204	
	AMD400	End of July '94	End of March '99	140 x 140 x 380	AMD450	106 x 106 x 225	
	AMD500	End of July '94	End of March '99	140 x 140 x 490	AMD550	122 x 122 x 259	
	AMD600	End of July '94	End of March '99	140 x 140 x 590	AMD650	160 x 160 x 311	
Odor Removal Filter	AMF200	End of July '94	End of March '99	80 x 80 x 153	AMF250	76 x 76 x 152 (158)	14-20-42
	AMF300	End of July '94	End of March '99	90 x 90 x 216	AMF350	90 x 90 x 184	
	AMF400	End of July '94	End of March '99	140 x 140 x 250	AMF450	106 x 106 x 205	
	AMF500	End of July '94	End of March '99	140 x 140 x 360	AMF550	122 x 122 x 239	
	AMF600	End of July '94	End of March '99	140 x 140 x 460	AMF650	160 x 160 x 291	

Note: Some models have different heights depending on the port size. They are shown in parentheses.