

Compressed Air Cleaning Filter Series

Series AM□/AFF

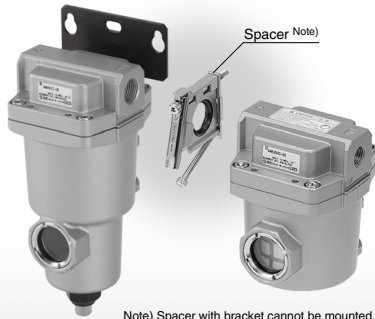
For Water, Solid/Oil Separation and Deodorization

Modular connection, Space-saving design, Labor-saving in piping! (AMGE□, AFF□□, AM□□, AM□□□, AMH□□, AME□□, AMF□□)

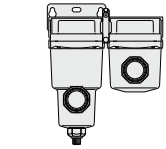
Uses the same spacer as the F.R.L. combination AC series.

Possible to make a modular connection with products such as AR series regulator.

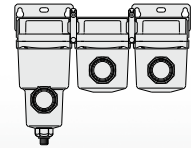
Modular connection example



Note) Spacer with bracket cannot be mounted.
Use the attached bracket.



AMH + AME



AMH + AME + AMF

* The C type is only suitable for modular connection.

Options added (AMGE□, AFF□□, AM□□, AM□□□, AMH□□, AME□□, AMF□□)

Differential pressure switch

Addition: 5 types

1.6 MPa specifications

FKM specifications

With differential pressure switch (125 VAC, 30 VDC)

With differential pressure switch (30 VDC)

Degreasing wash, white vaseline specifications



Compact, Lightweight (AME□□, AMF□□)

Height and weight reduced by up to 40%

New

Conventional



Water Separation

Water Separator/AMG

Solid/Oil Separation

Main Line Filter/AFF

Mist Separator/AM

Micro Mist Separator/AMD

Micro Mist Separator with Pre-filter/AMH

Super Mist Separator/AME

Deodorization

Odor Removal Filter/AMF

HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD□
GD

Series AM□/AFF

Water droplet removal

Water Separator

Water droplet separation rate: 99%



AMG150C to 550C

AMG650/850

Large dust particle filtration, Oil droplet separation

Main Line Filter

Nominal filtration rating: 3 μm
[Filtration efficiency: 99%]



AFF2C to 22C

AFF37B/75B

AFF75A to 220A

Dust filtration, Oil mist separation

Mist Separator

Nominal filtration rating: 0.3 μm
[Filtration efficiency: 99.9%]
Oil mist density at outlet:
Max. 1.0 mg/m³ (ANR)
[≈0.8 ppm]



AM150C to 550C

AM650/850

Dust filtration, Oil mist separation

Micro Mist Separator

Nominal filtration rating: 0.01 μm
[Filtration efficiency: 99.9%]
Oil mist density at outlet:
Max. 0.1 mg/m³ (ANR)
[≈0.08 ppm]



AM150C to 550C

AMD650, 850

Model		Flow capacity L/min (ANR) Max. flow capacity at 0.7 MPa inlet pressure	Port size	Note
AMG	150C	300	1/8, 1/4	Piping support type
	250C	750	1/4, 3/8	
	350C	1,500	3/8, 1/2	
	450C	2,200	1/2, 3/4	
	550C	3,700	3/4, 1	
	650	6,000	1, 1 1/2	
	850	12,000	1 1/2, 2	
AFF	2C	300	1/8, 1/4	Piping support type
	4C	750	1/4, 3/8	
	8C	1,500	3/8, 1/2	
	11C	2,200	1/2, 3/4	
	22C	3,700	3/4, 1	
	37B	6,000	1, 1 1/2	
	75B	12,000	1 1/2, 2	Free standing type
	75A		50(2B) flange	
	125A	22,000	80(3B) flange	
	150A	28,000	100(4B) flange	
220A	42,000			
AM	150C	300	1/8, 1/4	Piping support type
	250C	750	1/4, 3/8	
	350C	1,500	3/8, 1/2	
	450C	2,200	1/2, 3/4	
	550C	3,700	3/4, 1	
	650	6,000	1, 1 1/2	
	850	12,000	1 1/2, 2	
AMD	150C	200	1/8, 1/4	Piping support type
	250C	500	1/4, 3/8	
	350C	1,000	3/8, 1/2	
	450C	2,000	1/2, 3/4	
	550C	3,700	3/4, 1	
	650	6,000	1, 1 1/2	
	850	12,000	1 1/2, 2	
	800	8,000	50(2B) flange	Free standing type
	900	24,000	50(2B), 80(3B), 100(4B) flange	
	1000	40,000	100(4B), 150(6B) flange	

Dust filtration, Oil mist separation

Micro Mist Separator with Pre-filter

Built-in 0.3 μm pre-filter
 The AM + AMD element have been integrated to achieve a space-saving design.
 Nominal filtration rating: 0.01 μm
 [Filtration efficiency: 99.9%]
 Oil mist density at outlet:
 Max. 0.1 mg/m³ (ANR)
 [=0.08 ppm]



AMH150C to 550C AMH650/850

Dust filtration, Oil mist adsorption

Super Mist Separator

Color change indicates when element is saturated.
 Nominal filtration rating: 0.01 μm
 [Filtration efficiency: 99.9%]
 Oil mist density at outlet:
 Max. 0.01 mg/m³ (ANR)
 [=0.008 ppm]
 Cleanliness at outlet:
 Not more than 35 particles of size 0.3 μm or larger/10 L (100 particles or less/ft³)



AME150C to 550C AME650/850

Deodorization

Odor Removal Filter

Nominal filtration rating: 0.01 μm
 [Filtration efficiency: 99.9%]
 Oil mist density at outlet:
 Max. 0.004 mg/m³ (ANR)
 [=0.0032 ppm]



AMF150C to 550C

AMF650, 850

Model		Flow capacity L/min (ANR) Max. flow capacity at 0.7 MPa inlet pressure	Port size	Note
AMH	150C	200	1/8, 1/4	Piping support type
	250C	500	1/4, 3/8	
	350C	1,000	3/8, 1/2	
	450C	2,000	1/2, 3/4	
	550C	3,700	3/4, 1	
	650	6,000	1, 1 1/2	
	850	12,000	1 1/2, 2	
AME	150C	200	1/8, 1/4	Piping support type
	250C	500	1/4, 3/8	
	350C	1,000	3/8, 1/2	
	450C	2,000	1/2, 3/4	
	550C	3,700	3/4, 1	
	650	6,000	1, 1 1/2	
	850	12,000	1 1/2, 2	
AMF	150C	200	1/8, 1/4	Piping support type
	250C	500	1/4, 3/8	
	350C	1,000	3/8, 1/2	
	450C	2,000	1/2, 3/4	
	550C	3,700	3/4, 1	
	650	6,000	1, 1 1/2	
	850	12,000	1 1/2, 2	
	800	8,000	50(2B) flange	Free standing type
	900	24,000	50(2B), 80(3B) 100(4B) flange	
	1000	40,000	100(4B), 150(6B) flange	

- HAA
- HAW
- AT
- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD□
- GD

Compressed Air Cleaning Filter Series

Series AM□/AFF

	Series	Water removal rate	Nominal filtration rating	Oil mist density at outlet	Smell	Page
Water Separator <ul style="list-style-type: none"> Water Separator Eliminates water droplets in the compressed air. 	Series AMG	99%	—	—	—	P.185
Solid/Oil Separator	Series AFF	—	3 μm (Filtration efficiency: 99%)	—	—	P.193
	Series AM		0.3 μm (Filtration efficiency: 99.9%)	1 mg/m ³ (ANR) (=0.8 ppm) (after oil saturation)		P.201
	Series AMD		0.01 μm (Filtration efficiency: 99.9%)	0.1 mg/m ³ (ANR) (=0.08 ppm) (after oil saturation)		P.209
	Series AMH		0.3 + 0.01 μm (Filtration efficiency: 99.9%)	—		P.219
	Series AME		0.01 μm (Filtration efficiency: 99.9%)	0.01 mg/m ³ (ANR) (=0.008 ppm)		Reduces oil smell.
Deodorizer <ul style="list-style-type: none"> Odor Removal Filter Eliminates odor from compressed air. 	Series AMF	—	0.01 μm (Filtration efficiency: 99.9%)	0.004 mg/m ³ (ANR) (=0.0032 ppm)	Deodorizes oil smell.	P.235
Modular Connection Examples						P.244
How to Order Bowl Assembly						P.246
Options	<ul style="list-style-type: none"> Seal material: FKM For medium air pressure With differential pressure switch (with indicator) (125 VAC, 30 VDC) IN-OUT reversal direction Drain guide 1/4 female threaded With differential pressure switch (with indicator) With differential pressure switch (with indicator) (30 VDC) Degreasing wash, white vaseline With element service indicator 					Refer to "How to Order" of respective models.
Made to Order	<ul style="list-style-type: none"> With differential pressure gauge Possible to control product's service life by monitoring the clogged element. Auto drain type, drain guide specifications Drain piping is possible by auto drain type. With IN-OUT flange Flange piping connection is possible. White vaseline specifications* Using white vaseline for lubricant. With differential pressure gauge, IN-OUT flange Flange piping connection and clogged element confirmation are possible. With differential pressure switch (with indicator)* Allows visual confirmation of differential pressure which indicates the element life. The built-in contact enables remote control. 					P.250
* Applicable only to the AFF37B, 75B, AM□650 and 850.						
Special Specifications	Clean Series Usable inside a clean room.		Cotter-free, Fluorine-free Series Eliminates the effects on a color CRT by copper ion or fluoric resin, etc.			P.250
Related Products	Auto Drain Valve, Motor Operated Auto Drain, Heavy Duty Auto Drain, Differential Pressure Gauge					P.354
Specific Product Precautions						P.256

Water Separator

Series AMG

RoHS

Can remove water droplets in compressed air. Use this product in cases where "water must be avoided, but not so dry as when an air dryer is used".

Through the adoption of an element that is exclusively used for removing water droplets and the 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): 15 g/m³ (ANR)
 - Compressed air flow: Rated flow of each model

** Water removal rate (%) = $\frac{\text{Removed water (Water droplet) (g)}}{\text{Inflowed water (Water droplet) (g)}} \times 100$

Modular connection is possible with AMG150C to 550C.

(For details, refer to page 244.)



AMG150C to 550C

AMG650/850



(Drain cock specifications) (Auto drain specifications)



Made to Order
(For details, refer to page 250.)

Model

Model	AMG150C	AMG250C	AMG350C	AMG450C	AMG550C	AMG650	AMG850
Rated flow (L/min (ANR))	300	750	1500	2200	3700	6000	12000
Port size	1/8, 1/4	1/4, 3/8	3/8, 1/2	1/2, 3/4	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 0.7 MPa.

Max. flow capacity varies depending on the operating pressure. Refer to "Flow Characteristics" (page 188) and "Maximum Flow Capacity Line" (page 189).

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
Water removal rate	99%
Element life	2 years or when pressure drop reached 0.1 MPa

* With auto drain: 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type)

Accessory

Applicable model	AMG150C	AMG250C	AMG350C	AMG450C	AMG550C	AMG650	AMG850
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Caution

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

HAA
HAW

AT

IDF
IDU

IDFA

IDFB

IDH

ID

IDG

IDK

AMG

AFF

AM

AMD

AMH

AME

AMF

ZFC

SF

SFD

LLB

AD

GD

How to Order



AMG150C to 550C

AMG **550C** - [] **10** [] [] - [] - []

Body size

150C
250C
350C
450C
550C

Thread type

Symbol	Type
Nil	Rc
F	G ^{*1}
N	NPT

*1 Conforms to ISO1179-1.

Port size

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●				
02	1/4	●	●			
03	3/8		●	●		
04	1/2			●	●	
06	3/4				●	●
10	1					●

Accessory

Symbol	Description
Nil	—
B	Bracket ^{*2} ^{*3}

*2 Bracket is included, (but not assembled).

*3 The model with bracket is not available for -X15.

Made to Order

(*How to Order* and the applicable models are different from those shown on this page. Be sure to refer to *Made to Order*.)

Symbol	Description	Page for details
Nil	—	—
X15	With IN-OUT flange ^{*3}	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253

Option ^{*4}

Symbol	Description
Nil	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
J	Drain guide 1/4 female threaded ^{*5}
R	IN-OUT reversal direction
V	Degreasing wash, ^{*6} white vaseline

*5 Drain piping and piping for a stop valve such as ball valve are required.

*6 Only body/housing is degreasing washed.

Auto drain ^{*4}

Symbol	Description
Nil	Drain cock (Without auto drain)
C	N.C. auto drain
D	N.O. auto drain

*4 Refer to "Drain Exhaust Specifications/Option Combinations".
(Only one drain exhaust method can be selected.)

Auto Drain Exhaust Specifications/Option Combinations

⊙: All types of drain exhaust specifications are available. (including drain guide, "J" specification)

△: N.C. auto drain ("C" specification) is not available.

▼: Both N.C. and N.O. auto drain ("C", "D" specification) are not available.

	F	H	R	V
Nil	⊙	△	⊙	⊙
F		▼	⊙	▼
H			△	▼
R				⊙
V				

□: Not available

Options

Symbol F: Rubber material: FKM

FKM is used for the parts such as O-ring and gasket.

Symbol H: For medium air pressure (1.6 MPa)

Can be used up to 1.6 MPa at maximum.

Symbol J: Drain guide 1/4 female threaded



Can be piped to the drain exhaust port.

1/4 female threaded

Symbol R: IN-OUT reversal direction

Air flow in the separator is changed to right to left.
(Air flow direction of the standard: Left to right.)

Symbol V: Degreasing wash, white vaseline

Body/housing is degreasing washed. The lubrication grease for O-ring and gasket is changed to white vaseline.



How to Order

AMG650/850

AMG **650** - [] - [] - [] - [] - []

Body size

650
850

Thread type

Symbol	Type
NII	Rc
F	G
N	NPT

Port size

Symbol	Size	Applicable body size	
		650	850
10	1	●	—
14	1 1/2	●	●
20	2	—	●

Accessory

Symbol	Description
NII	—
B	Bracket *1 *2

*1 Bracket is included, (but not assembled).

*2 The model with bracket is not available for -X15.

Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
NII	—	—
X15	With IN-OUT flange *2	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253
X12	White vaseline	P.253

Option *3

Symbol	Description
NII	—
J	Drain guide 1/4 female threaded *5
R	IN-OUT reversal direction

*5 Drain piping and piping for a stop valve such as ball valve are required.

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

Auto drain *3

Symbol	Description
NII	Drain cock (Without auto drain) *4
D	N.O. auto drain

*3 Refer to "Auto Drain Specifications/Option Combinations".

*4 Body size 850 is equipped with a ball valve (Rc 3/8 female threaded). Mount a piping adapter IDF-AP609 (page 245) to the ball valve if NPT 3/8 female threaded is required.

Note) Refer to "How to Order Bowl Assembly" on page 246.

Auto Drain Specifications/Option Combinations

◎ : Available □ : Not available

Auto drain specifications/Option	Auto drain specifications	Option	Applicable model	
			D	J R
Auto drain specifications	N.O. auto drain	D	◎	◎
	Drain guide 1/4	J	◎	◎
Option	IN-OUT reversal direction	R	◎	◎

HAA
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AMG

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AMH

AME

AMF

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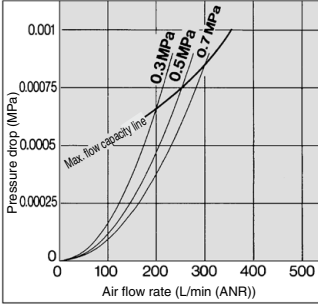
GD

Series AMG

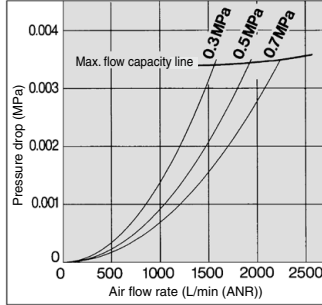
Flow Characteristics (Representative values) / Select the model under the max. flow capacity line.

Note) Compressed air over max. flow capacity line in the table below may not meet the specifications of the product.

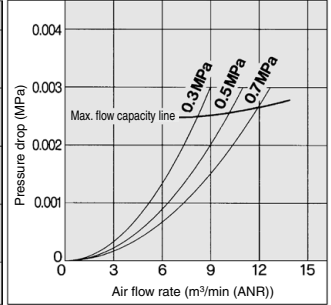
AMG150C



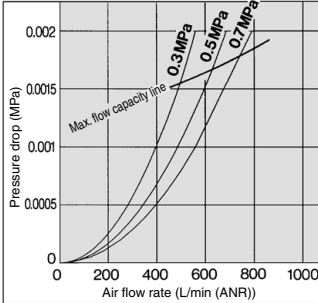
AMG450C



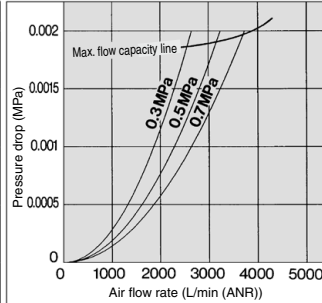
AMG850



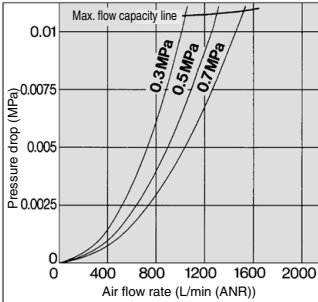
AMG250C



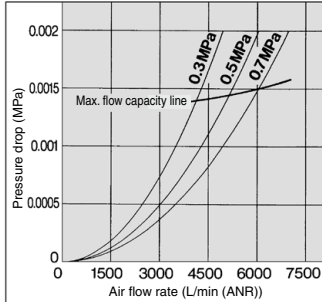
AMG550C



AMG350C



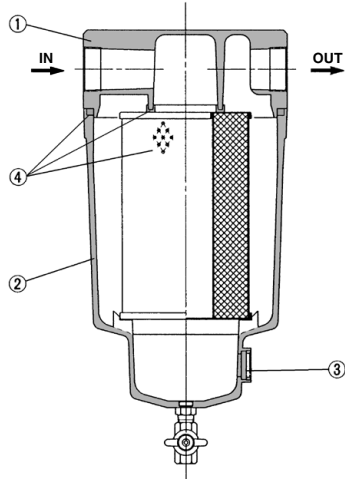
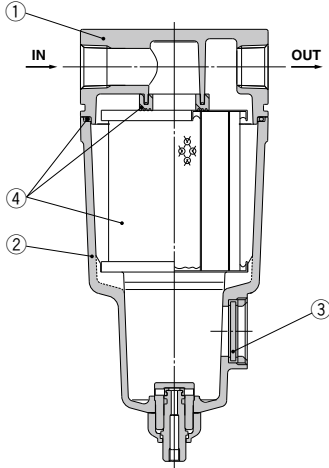
AMG650



Construction

AMG150C to 550C, AMG650

AMG850



Component Parts

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

Note) Refer to "How to Order Bowl Assembly" on page 246.

Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Refer to dimensions on pages 190 to 192 for details.

Replacement Parts

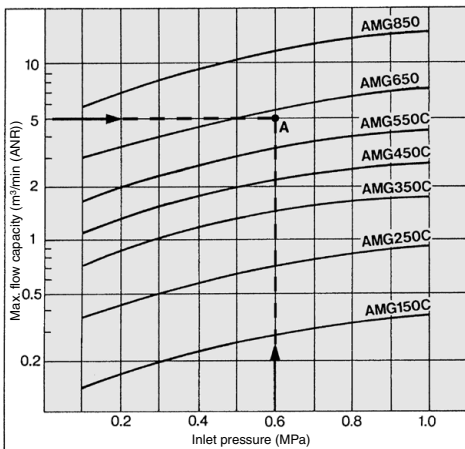
No.	Description	Material	Applicable model	Model						
				AMG150C	AMG250C	AMG350C	AMG450C	AMG550C	AMG650	AMG850
4	Element assembly	Resin:	Except option F	AMG-EL150	AMG-EL250	AMG-EL350	AMG-EL450	AMG-EL550	AMG-EL650	AMG-EL850
		others:	For option F	AMG-EL150-F	AMG-EL250-F	AMG-EL350-F	AMG-EL450-F	AMG-EL550-F	—	—

* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

* Refer to back page 259 for replacement of auto drain.

* Element assemblies for Made to Order (X12, X15, X26) are same as those for standard (see the above table).

Maximum Flow Capacity Line



Model Selection

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

(Example) Inlet pressure: 0.6 MPa

Max. flow capacity: 5 m³/min (ANR)

1. Obtain the intersecting point A of inlet pressure and max. flow capacity in the graph.
2. The AMG650 is obtained when the max. flow capacity line is above the intersecting point A in the graph.

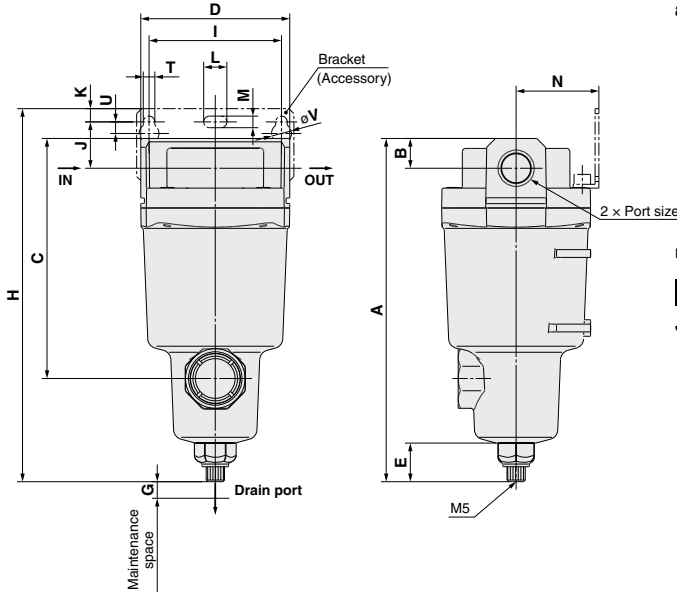
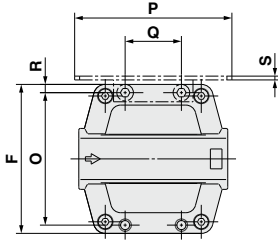
Note) Make sure to select a model that has the max. flow capacity line above the obtained intersecting point. With a model that has the max. flow capacity line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

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Series AMG

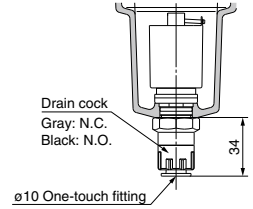
Dimensions

AMG150C to 550C

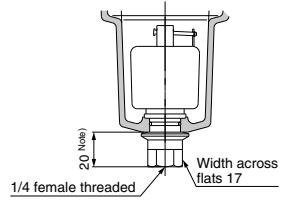


Auto drain

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



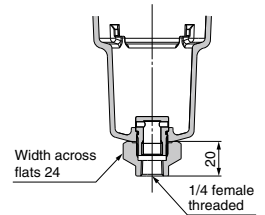
- Combination of D: With auto drain (N.O.) and H: For medium air pressure



Note) 23 for AMG250C.

Option

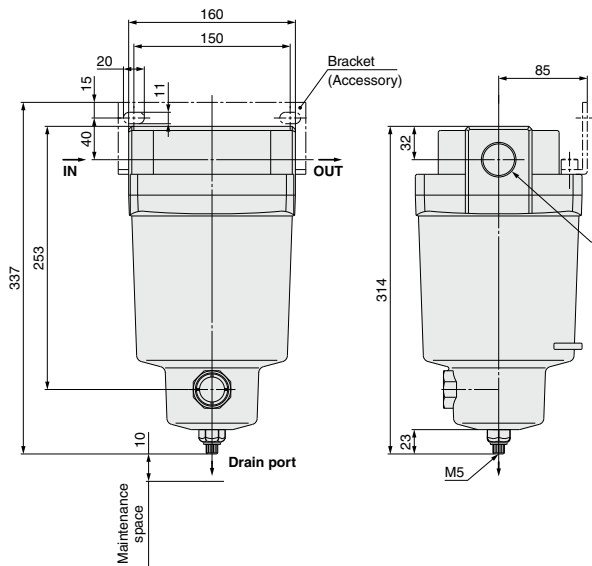
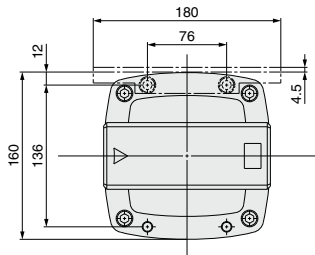
- J: Drain guide 1/4 female threaded



Model	Port size	A	B	C	D	E	F	G	Bracket related dimensions														
									H	I	J	K	T	U	L	M	V	N	O	P	Q	R	S
AMG150C	1/8, 1/4	161	10	99	63	23	63	10	176	56	20	5	6	6	12	6	10	35	54	70	26	4.5	1.6
AMG250C	1/4, 3/8	175	14	113	76	23	76	10	193	66	24	8	6	6	12	6	10	40	66	80	28	5	2
AMG350C	3/8, 1/2	207	18	145	90	23	90	10	225	80	28	8	7	7	14	7	12	50	80	95	34	5	2.3
AMG450C	1/2, 3/4	228	20	166	106	23	106	10	249	90	31	10	9	9	18	9	15	55	88	111	50	9	3.2
AMG550C	3/4, 1	262	24	200	122	23	122	15	281	100	33	10	9	9	18	9	15	65	102	126	60	10	3.2

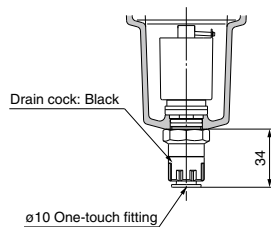
Dimensions

AMG650



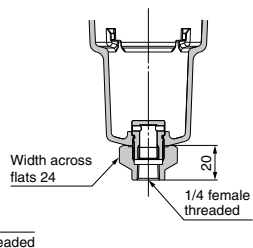
Auto drain

D: With auto drain (N.O.)



Option

J: Drain guide 1/4 female threaded



HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD <input type="checkbox"/>
GD

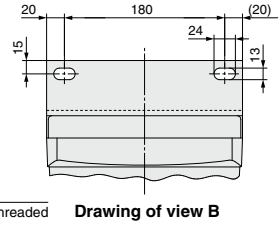
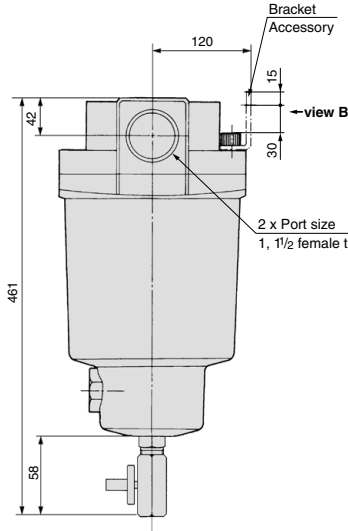
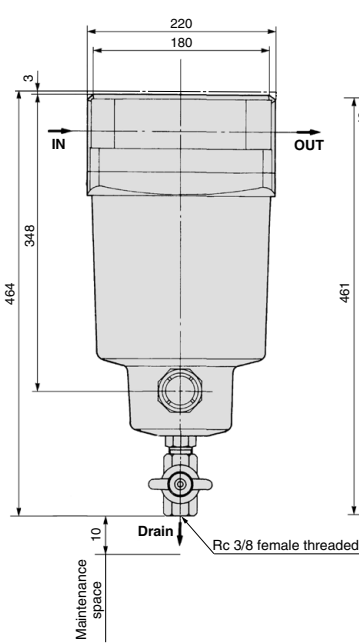
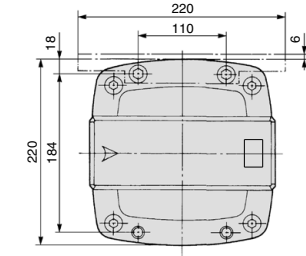
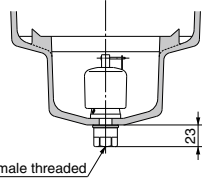
Series AMG

Dimensions

AMG850

Auto drain

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



Main Line Filter

Series AFF

RoHS

Can remove impurities such as oil, water and foreign matter in compressed air and can improve the function of a dryer in the downstream, extend the life of precision filter, and prevent trouble with the equipment.

Modular connection is possible with AFF2C to 22C.

(For details, refer to page 244.)



AFF2C to 22C



AFF37B, 75B

Symbol



(Drain cock specifications)

Symbol



(Auto drain specifications)



Made to Order
(For details, refer to page 250.)

Caution

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

Model

Model	AFF2C	AFF4C	AFF8C	AFF11C	AFF22C	AFF37B	AFF75B	AFF75A	AFF125A	AFF150A	AFF220A
Rated flow Note) (L/min (ANR))	300	750	1500	2200	3700	6000	12000	12400	23700	30000	45000
Port size	1/8, 1/4	1/4, 3/8	3/8, 1/2	1/2, 3/4	3/4, 1	1 1/2	1 1/2, 2	50(2B)	80(3B)	100(4B)	100(4B)
Weight (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5	50	52	72	87

Note) Max. flow capacity at 0.7 MPa.

Max. flow capacity varies depending on the operating pressure.

Refer to "Flow Characteristics" (page 196) and "Maximum Flow Capacity Line" below.

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa Note 1)
Min. operating pressure Note 2)	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration rating	3 μm (Filtration efficiency: 99%)
Element life	2 years (1 year for A type) or when pressure drop reached 0.1 MPa

Note 1) AFF75A to AFF220A: 0.97 MPa

Note 2) With auto drain: 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type)

Accessory/For AFF2C to 22C, AFF37B/75B

Applicable model	AFF2C	AFF4C	AFF8C	AFF11C	AFF22C	AFF37B	AFF75B
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Accessory/For AFF75A to 220A

Applicable model	AFF75A	AFF125A	AFF150A	AFF220A
Auto drain with metal case (2 pcs. each)	AD402-03-2			
Auto drain with resin case (2 pcs. each)	AD402-03			
Pressure gauge (2 pcs. each)	G46-15-02			
Companion flange (2 pcs. each)	50(2B)JIS 10K FF flange	80(3B)JIS 10K FF flange	100(4B)JIS 10K FF flange	
Anchor bolt (3 pcs. each)	AI-2S			

Model Selection

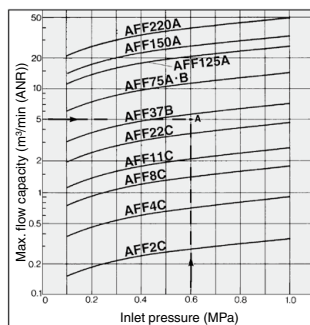
Select a model in accordance with the following procedure taking the inlet pressure and the max. flow capacity into consideration. (Example) Inlet pressure: 0.6 MPa

Max. flow capacity: 5 m³/min (ANR)

- Obtain the intersecting point A of inlet pressure and max. flow capacity in the graph.
- The AFF37B is obtained when the max. flow capacity line is above the intersecting point A in the graph.

Note) Make sure to select a model that has the max. flow capacity line above the obtained intersecting point. With a model that has the max. flow capacity 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.

Maximum Flow Capacity Line



How to Order



AFF2C to 22C

AFF 22C - [] - **10** - [] - [] - [] - []

Body size

Symbol	Applicable compressor output (guide)
2C	2.2 kW
4C	3.7 kW
8C	7.5 kW
11C	11 kW
22C	22 kW

Thread type

Symbol	Type
Nll	Rc
F	G*1
N	NPT

*1 Conforms to ISO1179-1.

Port size

Symbol	Size	Applicable body size				
		2C	4C	8C	11C	22C
01	1/8	●				
02	1/4	●	●			
03	3/8		●	●		
04	1/2			●	●	
06	3/4				●	●
10	1					●

Accessory

Symbol	Description
Nll	—
B	Bracket *2 *3

*2 Bracket is included, (but not assembled).

*3 The model with bracket is not available for -X15 and -X17.

Made to Order

(*How to Order* and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nll	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X15	With IN-OUT flange *3	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *3	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253

Option *4

Symbol	Description
Nll	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
J	Drain guide 1/4 female threaded *5
R	IN-OUT reversal direction
S	With differential pressure switch (125 VAC, 30 VDC) *6, (Note)
U	With differential pressure switch (30 VDC) *6
T	With element service indicator
V	Degreasing wash, *7 white vaseline

*5 Drain piping and piping for a stop valve such as ball valve are required.

*6 Differential pressure gauge is included, (but not assembled).

*7 Only body/housing is degreasing washed.

Note) Order "U" if conformity to the EU directive is required.

Drain Exhaust Specifications/Option Combinations

○: All types of drain exhaust specifications are available. (including drain guide, "J" specification)

△: N.C. auto drain ("C" specification) is not available.

▽: Both N.C. and N.O. auto drain ("C", "D" specification) are not available.

	Nll	F	H	R	S	U	T	V
Nll	○	○	△	○			Note	○
F	○		▽	○				▽
H	△	▽		△				▽
R	○	○	△				Note	○
S								
U	Note			Note				
T								○
V	○	▽	▽	○				○

Note: Only one drain exhaust method can be selected.

□: Not available

Auto drain *4

Symbol	Description
Nll	Drain cock (Without auto-drain)
C	N.C. auto drain
D	N.O. auto drain

*4 Refer to "Drain Exhaust Specifications/Option Combinations". (Only one drain exhaust method can be selected.)

Options

Symbol F: Rubber material: FKM

FKM is used for the parts such as O-ring and gasket.

Symbol H: For medium air pressure (1.6 MPa)

Can be used up to 1.6 MPa at maximum.

Symbol J: Drain guide 1/4 female threaded



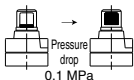
Can be piped to the drain exhaust port.

1/4 female thread

Symbol R: IN-OUT reversal direction

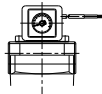
Air flow in the separator is changed to right to left. (Air flow direction of the standard: Left to right.)

Symbol T: With element service indicator



Saturation of the separator can be observed visually. (Element life check)

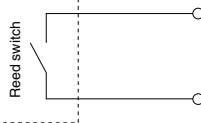
Symbol S: With differential pressure switch (with indicator)



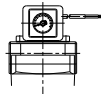
Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* The rated contact voltage is different from "U".

Max. contact capacity: 10 VA AC, 10 W DC
Rated contact voltage (max. operating current): 125 V AC (0.08 A), 30 V DC (0.33 A)



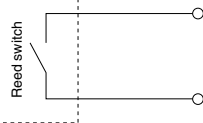
Symbol U: With differential pressure switch (with indicator)



Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* The rated contact voltage is different from "S".

Max. contact capacity: 10 W DC
Rated contact voltage (max. operating current): 30 V DC (0.33 A)



Symbol V: Degreasing wash, white vaseline

Body/housing is degreasing washed. The lubrication grease for O-ring and gasket is changed to white vaseline.



How to Order

AFF37B/75B

AFF 37B - [] **10** [] [] [] []

Body size

Symbol	Applicable compressor output (guide)
37B	37 kW
75B	75 kW

Thread type

Symbol	Type
Nll	Rc
F	G
N	NPT

Port size

Symbol	Size	Applicable body size	
		37B	75B
10	1	●	—
14	1½	●	●
20	2	—	●

Accessory

Symbol	Description
Nll	—
B	Bracket *1 *2

*1 Bracket is included, (but not assembled).

*2 The model with bracket is not available for -X15 and -X17.

Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nll	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X37	With differential pressure switch (With indicator, 125 VAC, 30 VDC)	P.251
X15	With IN-OUT flange *2	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *2	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253
X12	White vaseline specifications	P.253

Option *3

Symbol	Description
Nll	—
J	Drain guide ¼ female threaded *5
R	IN-OUT reversal direction
T	With element service indicator

*5 Drain piping and piping for a stop valve such as ball valve are required.

Auto drain *3

Symbol	Description
Nll	Drain cock (Without auto drain) *4
D	N.O. auto drain

*3 Refer to "Auto Drain Specifications/Option Combinations".

*4 Body size 75B is equipped with a ball valve (Rc 3/8 female threaded). Mount a piping adapter IDF-AP609 (page 245) to the ball valve if NPT 3/8 female threaded is required.

(Note) Refer to "How to Order Bowl Assembly" on page 246.

Auto Drain Specifications/Option Combinations

○ : Available □ : Not available

Auto drain specifications/Option		Auto drain specifications			Option			Applicable model	
		D	J	R	T	AFF37B	AFF75B		
Auto drain specifications	N.O. auto drain	D				○	○		
	Drain guide ¼		J			○	○		
Option	IN-OUT reversal direction			R		○	○		
	With element service indicator				T	○	○		

AFF75A to 220A

AFF 75A - **20** **D** [] []

Standard size (Applicable compressor)

Symbol	Compressor output
75A	75 kW
125A	110 to 125 kW
150A	150 kW
220A	180 to 220 kW

Port size

Symbol	Size	Applicable body size			
		75A	125A	150A	220A
20	50(2B) JIS 10K FF flange	●	—	—	—
30	80(3B) JIS 10K FF flange	—	●	—	—
40	100(4B) JIS 10K FF flange	—	—	●	●

Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nll	—	—
X13	Mist separator for high flow rate (Nominal filtration rating: 0.3 µm)	P.254

Accessory

Symbol	Description
Nll	—
D	Auto drain (Metal case)
P	Auto drain (Resin case)
G	Pressure gauge
F	Companion flange
L	Anchor bolt

(Note) Combination of D and P is not available.

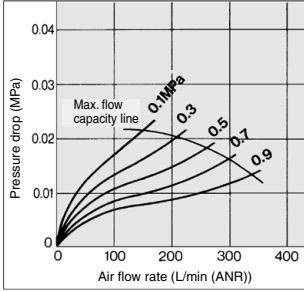
HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD
GD

Series AFF

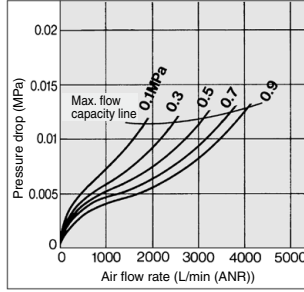
Flow Characteristics (Representative values) Select the model under the max. flow capacity line. (Element oil saturation)

Note) Compressed air over max. flow capacity line in the table below may not meet the specifications of the product.

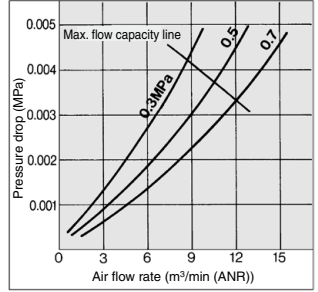
AFF2C



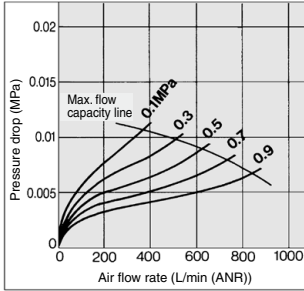
AFF22C



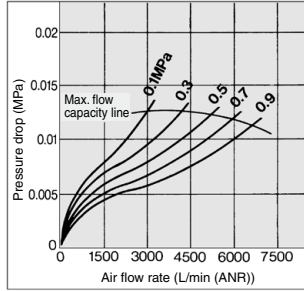
AFF75A



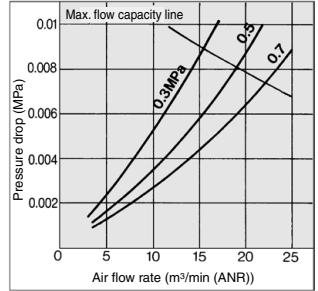
AFF4C



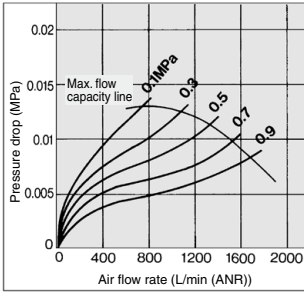
AFF37B



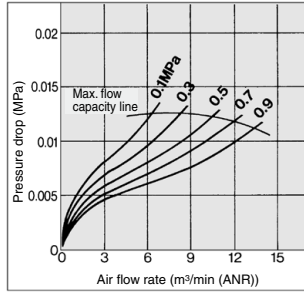
AFF125A



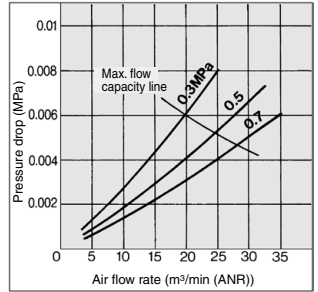
AFF8C



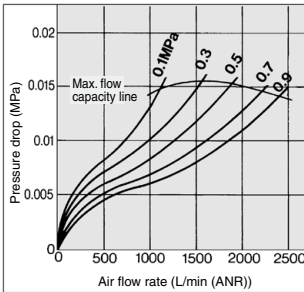
AFF75B



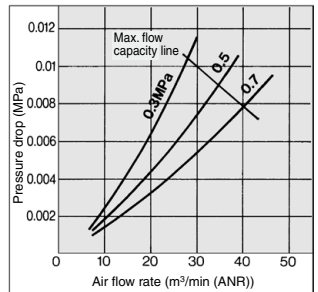
AFF150A



AFF11C

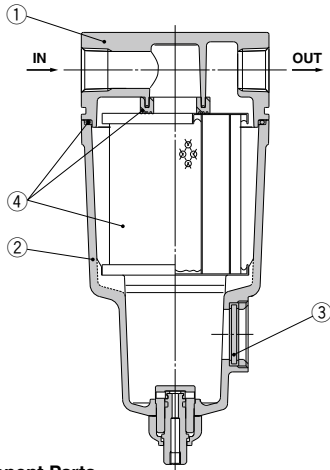


AFF220A

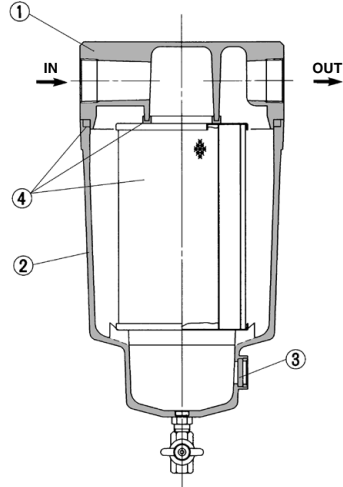


Construction

AFF2C to 22C, AFF37B



AFF75B



Note) Refer to "How to Order Bowl Assembly" on page 246.

Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Please refer to pages 198 through to 200 for details.

Component Parts

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

Replacement Parts

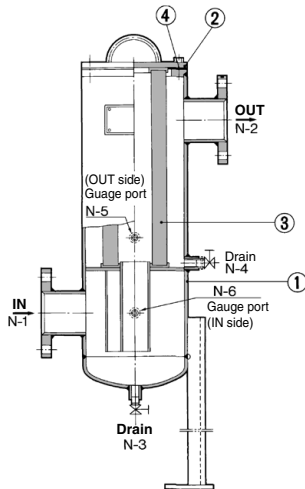
No.	Description	Material	Applicable model	Model						
				AFF2C	AFF4C	AFF8C	AFF11C	AFF22C	AFF37B	AFF75B
4	Element assembly	Cotton paper, others	Except option F For option F	AFF-EL2B AFF-EL2B-F	AFF-EL4B AFF-EL4B-F	AFF-EL8B AFF-EL8B-F	AFF-EL11B AFF-EL11B-F	AFF-EL22B AFF-EL22B-F	AFF-EL37B —	AFF-EL75B —

* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

* Refer to page 259 for replacement of auto drain.

* Element assemblies for Made to Order (X6, X12, X15, X17, X26, X37) are same as those for standard (see the above table).

AFF75A to 220A



Component Parts

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

Replacement Parts

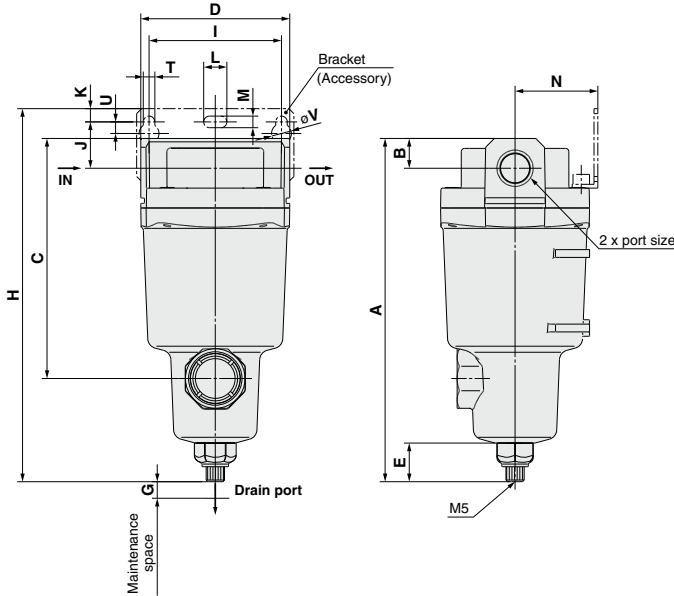
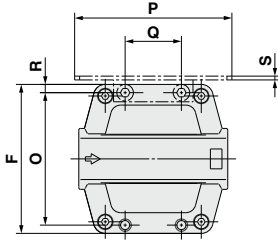
No.	Description	Material	Qty.	Model		
				AFF75A	AFF125A	AFF150A
3	Element	—	1	EC700-003N	EC800-003N	EC900-003N
4	Seal	NBR	1	AL-33S	AL-34S	AL-35S

HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD
GD

Series AFF

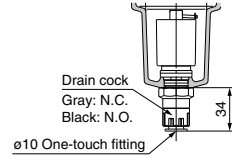
Dimensions

AFF2C to 22C

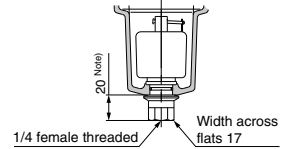


Auto drain

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



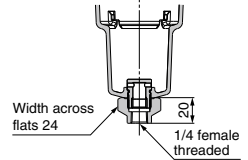
Combination of D: With auto drain (N.O.)
and H: For medium air pressure



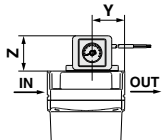
Note) 23 for AFF4C.

Option

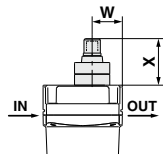
J: Drain guide 1/4 female threaded



S, U: With differential pressure switch (with indicator)



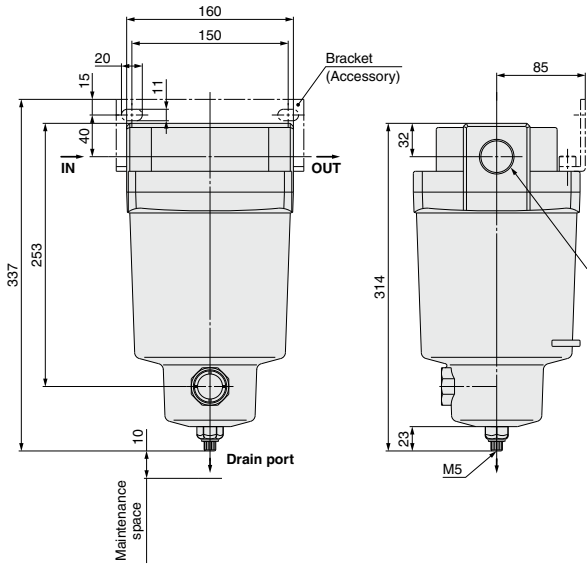
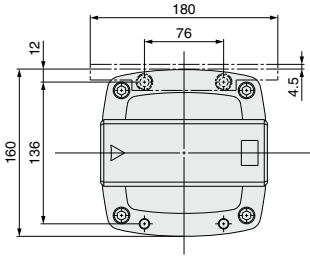
T: With element service indicator



Model	Port size	A	B	C	D	E	F	G	Bracket related dimensions													Element service indicator related dimensions	Differential pressure switch related dimensions			
									H	I	J	K	T	U	L	M	V	N	O	P	Q			R	S	W
AFF2C	1/8, 1/4	161	10	99	63	23	63	10	176	56	20	5	6	12	6	10	35	54	70	26	4.5	1.6	24	37	32	41
AFF4C	1/4, 3/8	175	14	113	76	23	76	10	193	66	24	8	6	12	6	10	40	66	80	28	5	2	27	37	36	41
AFF8C	3/8, 1/2	207	18	145	90	23	90	10	225	80	28	8	7	14	7	12	50	80	95	34	5	2.3	32	37	42	41
AFF11C	1/2, 3/4	228	20	166	106	23	106	10	249	90	31	10	9	18	9	15	55	88	111	50	9	3.2	37	37	43	41
AFF22C	3/4, 1	262	24	200	122	23	122	15	281	100	33	10	9	18	9	15	65	102	126	60	10	3.2	39	37	51	41

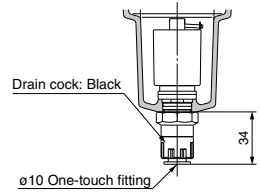
Dimensions

AFF37B



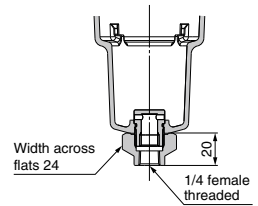
Auto drain

D: With auto drain (N.O.)

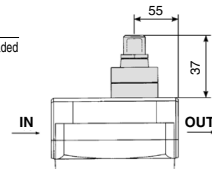


Option

J: Drain guide 1/4 female threaded



T: With element service indicator

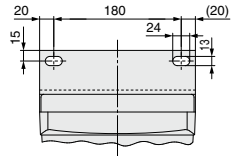
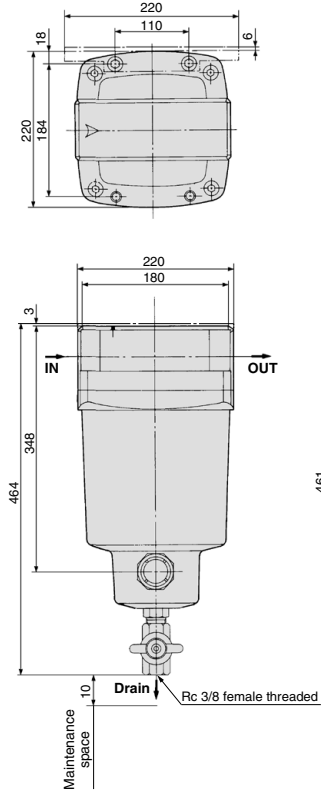


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AMH
AME
AMF
ZFC
SF
SFD
LLB
AD
GD

Series AFF

Dimensions

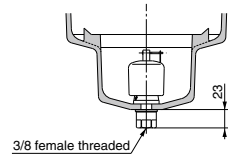
AFF75B



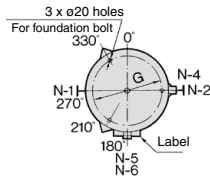
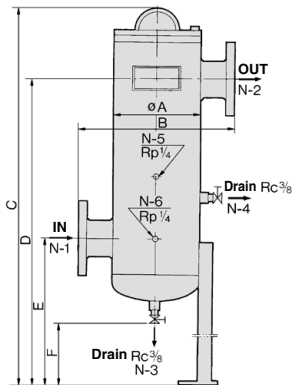
Drawing of view B

Auto drain

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



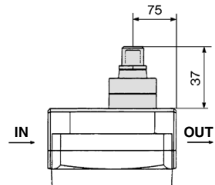
AFF75A to 220A



ORIENTATION

Option

T: With element service indicator



Model	Port size	ϕA	B	C	D	E	F	G
AFF75A	50(2B)JIS10K FF flange	200 (8B)	380	1125	935	505	265	184
AFF125A	80(3B)JIS10K FF flange	200 (8B)	380	1125	935	505	265	184
AFF150A	100(4B)JIS10K FF flange	250 (10B)	450	1178	980	540	265	236
AFF220A	100(4B)JIS10K FF flange	300 (12B)	500	1291	1070	670	325	288

Mist Separator

Series AM



Can remove oil mist in compressed air and separate and remove particles such as rust or carbon of more than 0.3 μm.

Modular connection is possible with AM150C to 550C.
(For details, refer to page 244.)



AM150C to 550C



AM650/850

Symbol



(Drain cock specifications)

Symbol



(Auto drain specifications)



Made to Order
(For details, refer to page 250.)

Model

Model	AM150C	AM250C	AM350C	AM450C	AM550C	AM650	AM850
Rated flow (L/min (ANR)) ^{Note)}	300	750	1500	2200	3700	6000	12000
Port size	1/8, 1/4	1/4, 3/8	3/8, 1/2	1/2, 3/4	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) Maximum flow capacity at 0.7 MPa.

Maximum flow capacity varies depending on the operating pressure.

Refer to "Flow Characteristics" (page 204) and "Max. Flow Capacity Line" (page 205) below.

Note) Refer to "Made to Order" (page 254) for high flow 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
Nominal filtration rating	0.3 μm (Filtration efficiency: 99.9%)
Oil mist density at outlet	Max. 1 mg/m ³ (ANR) (=0.8 ppm) ^{*2}
Element life	2 years or when pressure drop reached 0.1 MPa

*1 With auto drain: 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type)

*2 Oil mist density at 30 mg/m³ (ANR) blown out by compressor.

Accessory

Applicable model	AM150C	AM250C	AM350C	AM450C	AM550C	AM650	AM850
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Caution

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

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AMH

AME

AMF

ZFC

SF

SFD

LLB

AD

GD

How to Order



AM150C to 550C

AM **550C** - **10** - - - -

Body size

Symbol	Applicable compressor output (guide)
150C	2.2 kW
250C	3.7 kW
350C	7.5 kW
450C	11 kW
550C	22 kW

Thread type

Symbol	Type
Nil	Rc
F	G ^{3/1}
N	NPT

*1 Conforms to ISO1179-1.

Made to Order

(*How to Order* and the applicable models are different from those shown on this page. Be sure to refer to *Made to Order*.)

Symbol	Description	Page for details
Nil	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X15	With IN-OUT flange	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *3	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253

Port size

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●				
02	1/4	●	●			
03	3/8		●	●		
04	1/2			●	●	
06	3/4				●	●
10	1					●

Accessory

Symbol	Description
Nil	—
B	Bracket *2, *3

*2 Bracket is included, (but not assembled).

*3 The model with bracket is not available for -X15 and -X17.

Option *4

Symbol	Description
Nil	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
J	Drain guide 1/4 female threaded *5
R	IN-OUT reversal direction
S	With differential pressure switch (125 VAC, 30 VDC) *6, (Note)
U	With differential pressure switch (30 VDC) *6
T	Element service indicator
V	Degreasing wash, *7 white vaseline

*5 Drain piping and piping for a stop valve such as ball valve are required.

*6 Differential pressure gauge is included, (but not assembled).

*7 Only body/housing is degreasing washed.

(Note) Order "U" if conformity to the EU directive is required.

Drain Exhaust Specifications/Option Combinations

○: All types of drain exhaust specifications are available. (including drain guide, "J" specification)

△: N.C. auto drain ("C" specification) is not available.

▽: Both N.C. and N.O. auto drain ("C", "D" specification) are not available.

	Nil	F	H	R	S	U	T	V
Nil	○	○	△	○			Note	○
F	○		▽	○				▽
H	△		▽	△				▽
R	○	○	△				Note	○
S								
U	Note			Note				
T								○
V	○	▽	▽	○				○

Note: Only one drain exhaust method can be selected.

□: Not available

Options

Symbol F: Rubber material: FKM

FKM is used for the parts such as O-ring and gasket.

Symbol H: For medium air pressure (1.6 MPa)

Can be used up to 1.6 MPa at maximum.

Symbol J: Drain guide 1/4 female threaded



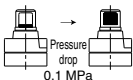
Can be piped to the drain exhaust port.

1/4 female threaded

Symbol R: IN-OUT reversal direction

Air flow in the separator is changed to right to left. (Air flow direction of the standard: Left to right.)

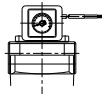
Symbol T: With element service indicator



Saturation of the separator can be observed visually. (Element life check)

0.1 MPa

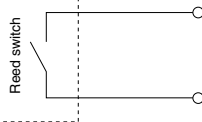
Symbol S: With differential pressure switch (with indicator)



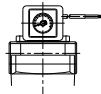
Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* The rated contact voltage is different from "U".

Max. contact capacity: 10 VA AC, 10 W DC
Rated contact voltage (max. operating current): 125 VAC (0.08 A), 30 VDC (0.33 A)



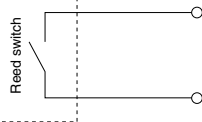
Symbol U: With differential pressure switch (with indicator)



Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* The rated contact voltage is different from "S".

Max. contact capacity: 10 W DC
Rated contact voltage (max. operating current): 30 VDC (0.33 A)





How to Order

AM650/850

AM 650 — [] — [] — [] — [] — []

Body size

Symbol	Applicable compressor output (guide)
650	37 kW
850	75 kW

Thread type

Symbol	Type
N	Rc
F	G
N	NPT

Port size

Symbol	Size	Applicable body size	
		650	850
10	1	●	—
14	1 1/2	●	●
20	2	—	●

Accessory

Symbol	Description
Nil	—
B	Bracket *1, *2

*1 Bracket is included, (but not assembled).

*2 The model with bracket is not available for -X15 and -X17.

Made to Order

(*How to Order* and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nil	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X37	With differential pressure switch (With indicator, 125 VAC, 30 VDC)	P.251
X15	With IN-OUT flange *2	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *2	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253
X12	White vaseline specifications	P.253

Option *3

Symbol	Description
Nil	—
J	Drain guide 1/4 female threaded *5
R	IN-OUT reversal direction
T	With element service indicator

*5 Drain piping and piping for a stop valve such as ball valve are required.

Auto drain *3

Symbol	Description
Nil	Drain cock (Without auto drain) *4
D	N.O. auto drain

*3 Refer to "Auto Drain Specifications/Option Combinations".

*4 Body size 850 is equipped with a ball valve (Rc 3/8 female threaded). Mount a piping adapter IDF-AP609 (page 245) to the ball valve if NPT 3/8 female threaded is required.

(Note) Refer to "How to Order Bowl Assembly" on page 246.

Auto Drain Specifications/Option Combinations

○ : Available □ : Not available

Auto drain specifications/Option		Auto drain specifications	Option				Applicable model	
			D	J	R	T	AM650	AM850
Auto drain specifications	N.O. auto drain	D		○	○		○	○
	Drain guide 1/4	J			○	○	○	○
Option	IN-OUT reversal direction	R	○	○		○	○	○
	With element service indicator	T	○	○	○		○	○

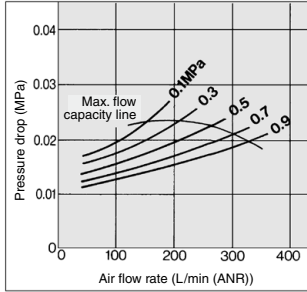
- HAA
- HAW
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- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
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- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD□
- GD

Series AM

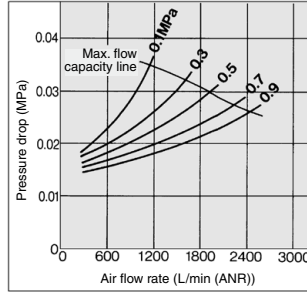
Flow Characteristics (Representative values) /Select the model under the max. flow capacity line. (Element oil saturation)

Note) Compressed air over max. flow capacity line in the table below may not meet the specifications of the product.

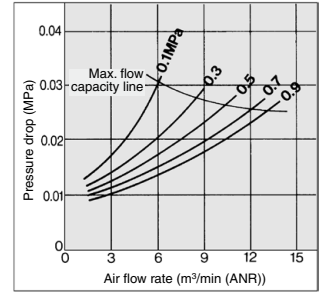
AM150C



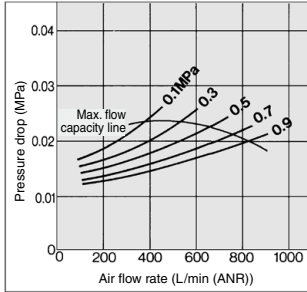
AM450C



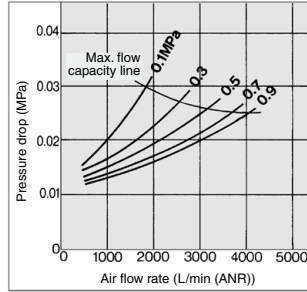
AM850



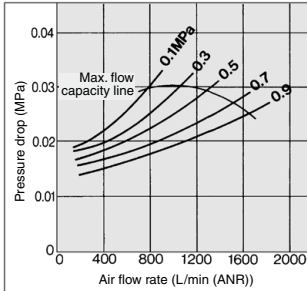
AM250C



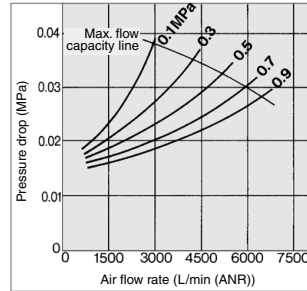
AM550C



AM350C

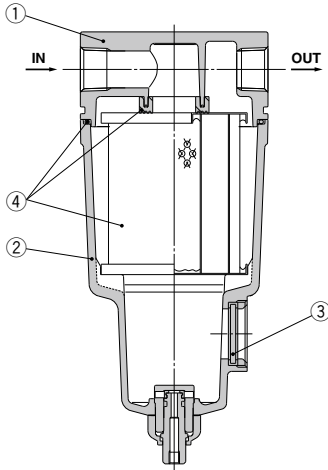


AM650

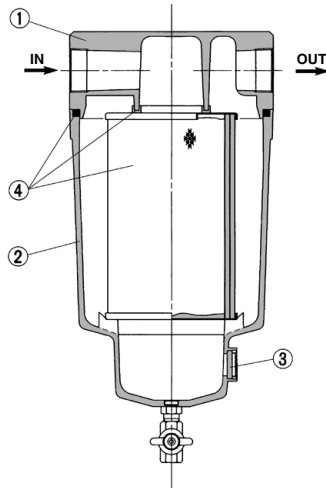


Construction

AM150C to 550C, AM650



AM850



Component Parts

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

Note) Refer to "How to Order Bowl Assembly" on page 246.

Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Refer to dimensions on pages 206 through to 208 for details.

Replacement Parts

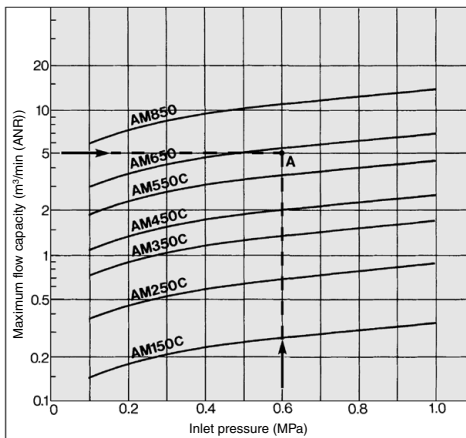
No.	Description	Material	Applicable model	Model						
				AM150C	AM250C	AM350C	AM450C	AM550C	AM650	AM850
4	Element assembly	Glass fiber, others	Except option F	AM-EL150	AM-EL250	AM-EL350	AM-EL450	AM-EL550	AM-EL650	AM-EL850
			For option F	AM-EL150-F	AM-EL250-F	AM-EL350-F	AM-EL450-F	AM-EL550-F	—	—

* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

* Refer to page 259 for replacement of auto drain.

* Element assemblies for Made to Order (X6, X12, X15, X17, X26, X37) are same as those for standard (see the above table).

Maximum Flow Capacity Line



Model Selection

Select a model in accordance with the following procedure taking the inlet pressure and the maximum flow capacity into consideration.

(Example) Inlet pressure: 0.6 MPa

Maximum flow capacity: 5 m³/min (ANR)

- Obtain the intersecting point A of inlet pressure and Maximum flow capacity in the graph.
- The AM650 is obtained when the max. flow capacity line is above the intersecting point A in the graph.

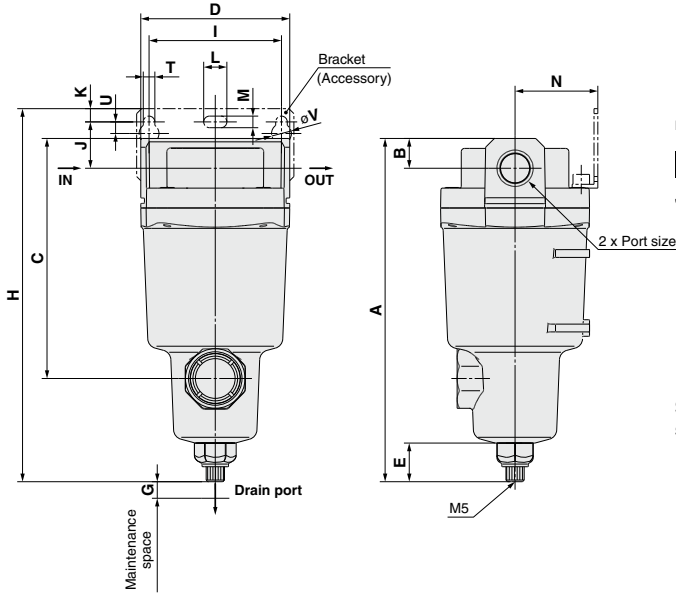
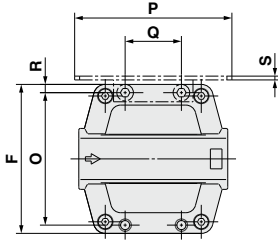
Note) Make sure to select a model that has the max. flow capacity line above the obtained intersecting point. With a model that has the max. flow capacity line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

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Series AM

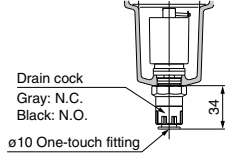
Dimensions

AM150C to 550C

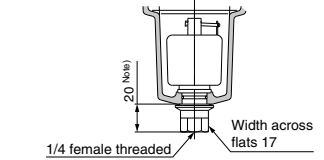


Auto drain

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



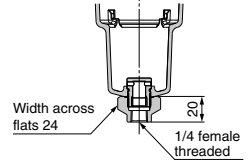
- Combination of D: With auto drain (N.O.) and H: For medium air pressure



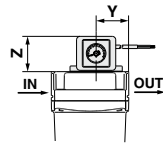
Note) 23 for AM250C.

Option

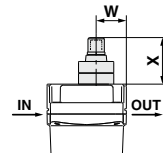
- J: Drain guide 1/4 female threaded



- S, U: With differential pressure switch (with indicator)



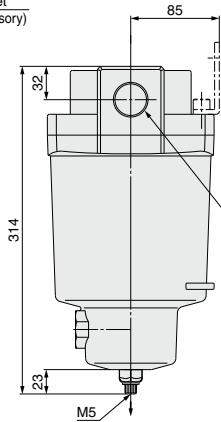
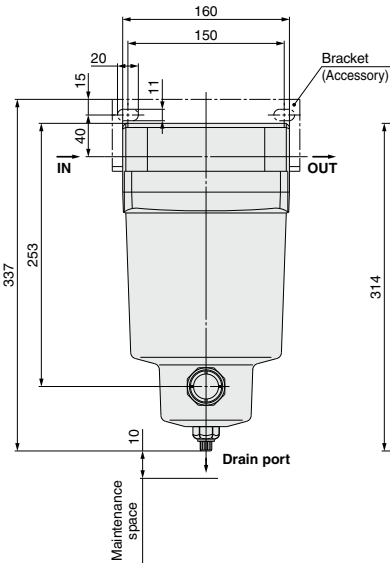
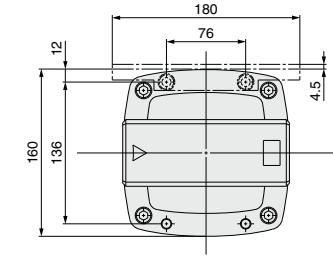
- T: With element service indicator



Model	Port size	A	B	C	D	E	F	G	Bracket related dimensions													Element service indicator related dimensions	Differential pressure switch related dimensions			
									H	I	J	K	T	U	L	M	V	N	O	P	Q			R	S	W
AM150C	1/8, 1/4	158	10	99	63	20	63	10	173	56	20	5	6	12	6	10	35	54	70	26	4.5	1.6	24	37	32	41
AM250C	1/4, 3/8	172	14	113	76	20	76	10	190	66	24	8	6	12	6	10	40	66	80	28	5	2	27	37	36	41
AM350C	3/8, 1/2	204	18	145	90	20	90	10	222	80	28	8	7	14	7	12	50	80	95	34	5	2.3	32	37	42	41
AM450C	1/2, 3/4	225	20	166	106	20	106	10	246	90	31	10	9	18	9	15	55	88	111	50	9	3.2	37	37	43	41
AM550C	3/4, 1	259	24	200	122	20	122	15	278	100	33	10	9	18	9	15	65	102	126	60	10	3.2	39	37	51	41

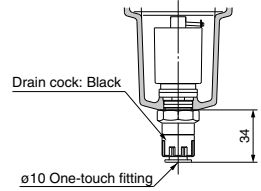
Dimensions

AM650



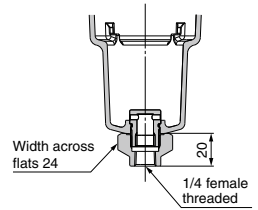
Auto drain

D: With auto drain (N.O.)

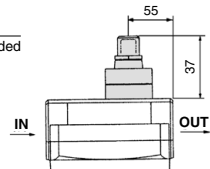


Option

J: Drain guide 1/4 female threaded



T: With element service indicator

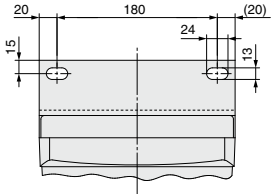
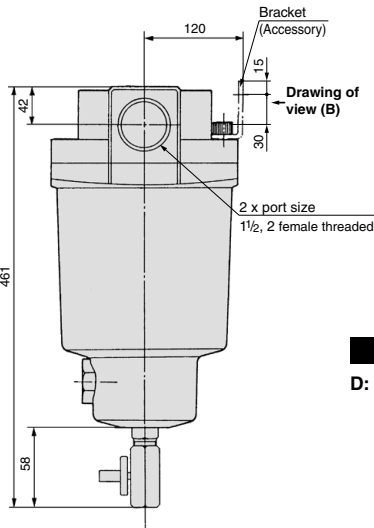
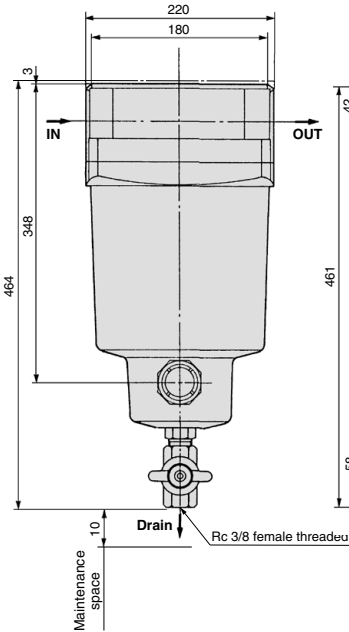
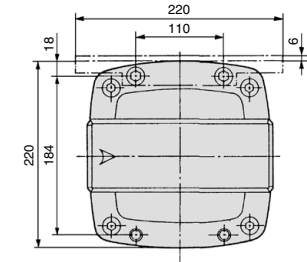


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AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD
GD

Series AM

Dimensions

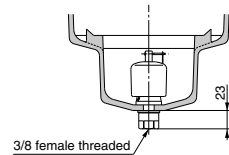
AM850



Drawing of view (B)

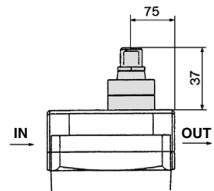
Auto drain

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



Option

T: With element service indicator



Micro Mist Separator Series AMD

RoHS

Can separate and remove aerosol state oil mist in compressed air and remove particles such as carbon or dust of more than 0.01 μm.

Use this product as a pre-filter for compressed air for precision instruments or clean room requiring higher clean air.

Modular connection is possible with AMD150C to 550C. (For details, refer to page 244.)



AMD150C to 550C

AMD650/850



(Drain cock specifications)



(Auto drain specifications)



Made to Order

(For details, refer to page 250.)

Model

Model	AMD150C	AMD250C	AMD350C	AMD450C	AMD550C	AMD650	AMD850
Rated flow (L/min (ANR)) ^{Note)}	200	500	1000	2000	3700	6000	12000
Port size	1/8, 1/4	1/4, 3/8	3/8, 1/2	1/2, 3/4	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 0.7 MPa.

Max. flow capacity varies depending on the operating pressure.

Refer to "Flow Characteristics" (page 212) and "Maximum Flow Capacity Line" (page 211).

Model/Free Standing Type

Model	AMD800	AMD900	AMD1000
Rated flow (L/min (ANR))	8000	24000	40000
Port size	50(2B)JIS 10K FF flange	50(2B), 80(3B), 100(4B)JIS 10K FF flange	100(4B), 150(6B)JIS 10K FF flange
Weight (kg)	100	220	430

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa ^{Note 3)}
Min. operating pressure ^{Note 1)}	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Filtration rating	0.01 μm (Filtration efficiency: 99.9%)
Oil mist density at outlet	Max. 0.1 mg/m ³ (ANR) ^{Note 2)} (Before saturated with oil, less than 0.01 mg/m ³ (ANR) = 0.008 ppm)
Element life	2 years (1 year for flange type) or when pressure drop reached 0.1 MPa

Note 1) With auto drain: 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type)

Note 2) Oil mist density at 30 mg/m³ (ANR) blown out by compressor.

Note 3) AMD800 to AMD1000: 0.97 MPa

Accessory

Applicable model	AMD150C	AMD250C	AMD350C	AMD450C	AMD550C	AMD650	AMD850
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

⚠ Caution

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

HAA
HAW

AT

IDF
IDU

IDFA

IDFB

IDH

ID

IDG

IDK

AMG

AFF

AM

AMD

AMH

AME

AMF

ZFC

SF

SFD

LLB

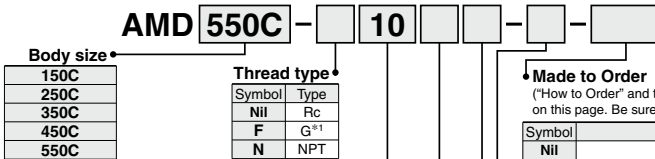
AD

GD

How to Order



AMD150C to 550C



Port size •

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●				
02	1/4	●	●			
03	3/8		●			
04	1/2			●	●	
06	3/4				●	●
10	1					●

Accessory •

Symbol	Description
Nil	
B	Bracket *2 *3

*2 Bracket is included, (but not assembled).
*3 The model with bracket is not available for -X15 and -X17.

Drain Exhaust Specifications/Option Combinations

- : All types of drain exhaust specifications are available. (including drain guide, "J" specification)
- △: N.C. auto drain ("C" specification) is not available.
- ▽: Both N.C. and N.O. auto drain ("C", "D" specification) are not available.

	Nil	F	H	R	S	U	T	V
Nil	○	○	△	○		Note		○
F	○		▽	○				▽
H	△	▽		△				
R	○	○	△			Note		○
S								
U	Note			Note				
T								○
V	○	▽	▽	○				○

Note: Only one drain exhaust method can be selected.
□: Not available

Options

Symbol F: Rubber material: FKM

FKM is used for the parts such as O-ring and gasket.

Symbol H: For medium air pressure (1.6 MPa)

Can be used up to 1.6 MPa at maximum.

Symbol J: Drain guide 1/4 female threaded

Can be piped to the drain exhaust port.

Symbol R: IN-OUT reversal direction

Air flow in the separator is changed to right to left. (Air flow direction of the standard: Left to right.)

Symbol S: With differential pressure switch (with indicator)

Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

Symbol U: With differential pressure switch (with indicator)

Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

Symbol T: With element service indicator

Saturation of the separator can be observed visually. (Element life check)

0.1 MPa

* The rated contact voltage is different from "U".

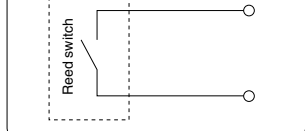
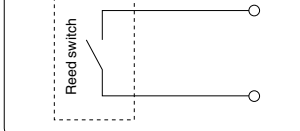
Max. contact capacity: 10 VA AC, 10 W DC
Rated contact voltage (max. operating current): 125 V AC (0.08 A), 30 V DC (0.33 A)

* The rated contact voltage is different from "S".

Max. contact capacity: 10 W DC
Rated contact voltage (max. operating current): 30 V DC (0.33 A)

Symbol V: Degreasing wash, white vaseline

Body/housing is degreasing washed. The lubrication grease for O-ring and gasket is changed to white vaseline.



Made to Order
(*How to Order* and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nil	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X15	With IN-OUT flange *3	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *3	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253

Option *4

Symbol	Description
Nil	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
J	Drain guide 1/4 female thread *5
R	IN-OUT reversal direction
S	With differential pressure switch (125 VAC, 30 VDC) *6, (Note)
U	With differential pressure switch (30 VDC) *6
T	With element service indicator
V	Degreasing wash, *7 white vaseline

- *5 Drain piping and piping for a stop valve such as ball valve are required.
- *6 Differential pressure gauge is included, (but not assembled).
- *7 Only body/housing is degreasing washed. (Note) Order "U" if conformity to the EU directive is required.

Auto drain *4

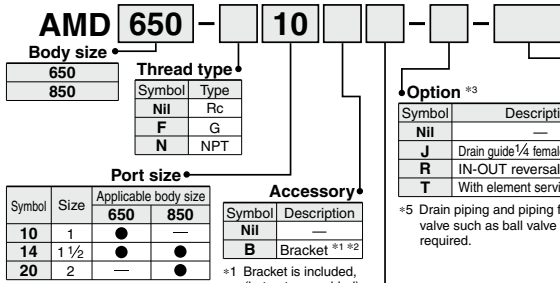
Symbol	Description
Nil	Drain cock (Without auto drain)
C	N.C. auto drain
D	N.O. auto drain

*4 Refer to "Drain Exhaust Specifications/Option Combinations". (Only one drain exhaust method can be selected.)



How to Order

AMD650/850



Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Option *3

Symbol	Description
Nil	—
J	Drain guide 1/4 female threaded*5
R	IN-OUT reversal direction
T	With element service indicator

*5 Drain piping and piping for a stop valve such as ball valve are required.

Symbol	Description	Page for details
Nil	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X37	With differential pressure switch (With indicator, 125 VAC, 30 VDC)	P.251
X15	With IN-OUT flange *12	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *12	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253
X12	White vaseline specifications	P.253

(Note) Refer to "How to Order Bowl Assembly" on page 246.

Auto drain *3

Symbol	Description
Nil	Drain cock (Without auto drain) *4
D	N.O. auto drain

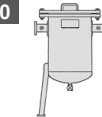
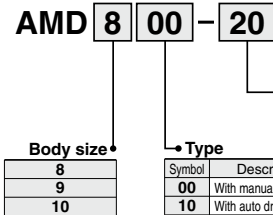
*3 Refer to "Auto Drain Specifications/Option Combinations".
*4 Body size 850 is equipped with a ball valve (Rc 3/8 female threaded). Mount a piping adapter IDF-AP609 (page 245) to the ball valve if NPT 3/8 female threaded is required.

Auto Drain Specifications/Option Combinations

○: Available □: Not available

Auto drain specifications/Option				Auto drain specifications			Option			Applicable model	
				D	J	R	T	AMD650	AMD850		
Auto drain specifications	N.O. auto drain	D		○	○	○	○	○	○		
Option	Drain guide 1/4	J		○	○	○	○	○	○		
	IN-OUT reversal direction	R		○	○	○	○	○	○		
	With element service indicator	T		○	○	○	○	○	○		

Free standing type AMD800/810 to 10□0



Port size

Symbol	Size	Applicable body size		
		AMD800, 810	AMD9□0	AMD10□0
20	50(2B)JIS 10K FF flange	●	●	—
30	80(3B)JIS 10K FF flange	●	●	—
40	100(4B)JIS 10K FF flange	—	●	●
60	150(6B)JIS 10K FF flange	—	—	●

Model Selection

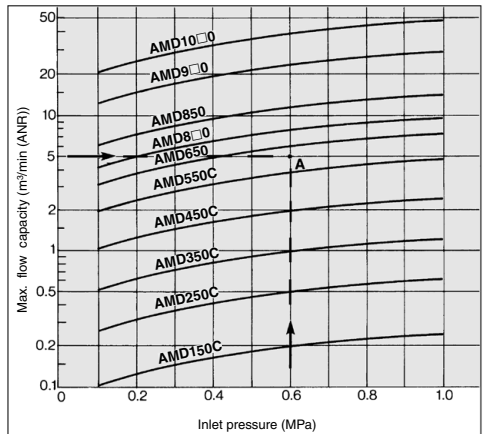
Select a model in accordance with the following procedure taking the inlet pressure and the max. flow capacity into consideration.
(Example) Inlet pressure: 0.6 MPa

Max. flow capacity: 5 m³/min (ANR)

- Obtain the intersecting point A of inlet pressure and max. flow capacity in the graph.
- The AMD650 is obtained when the max. flow capacity line is above the intersecting point A in the graph.

(Note) Make sure to select a model that has the max. flow capacity line above the obtained intersecting point. With a model that has the max. flow capacity 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.

Maximum Flow Capacity Line



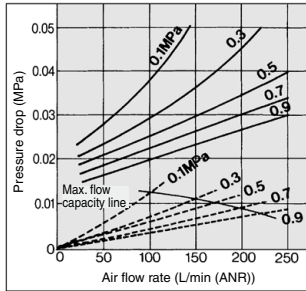
HAA
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IDFB
IDH
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IDG
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AFF
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AMD
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AME
AMF
ZFC
SF
SFD
LLB
AD□
GD

Series AMD

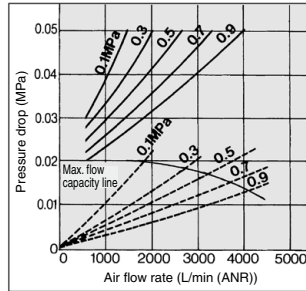
Flow Characteristics (Representative values) Select the model under the max. flow capacity line. (— Element oil saturation ----- Initial condition)

Note) Compressed air over max. flow line in the table below may not meet the specifications of the product.

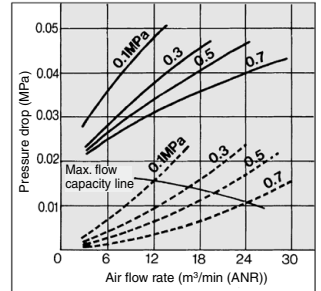
AMD150C



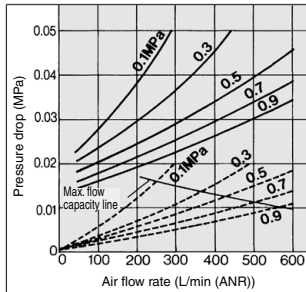
AMD550C



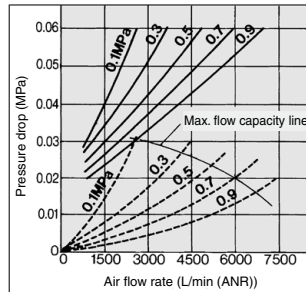
AMD9□0



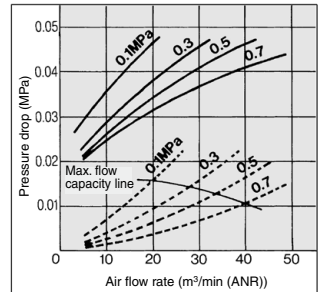
AMD250C



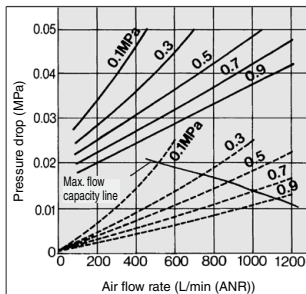
AMD650



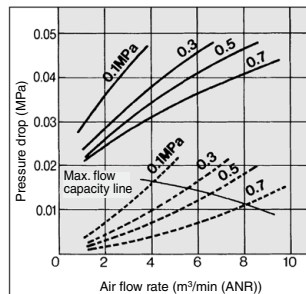
AMD10□0



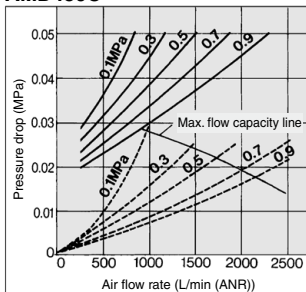
AMD350C



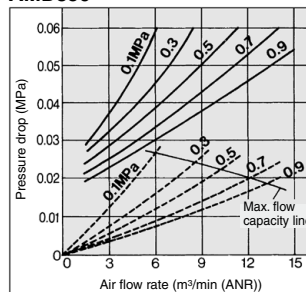
AMD8□0



AMD450C

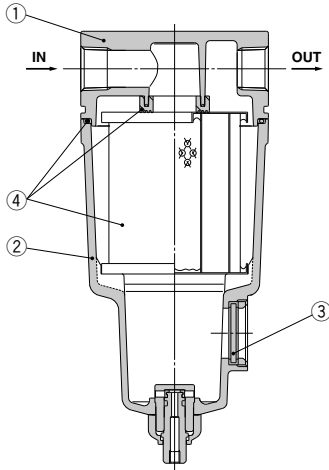


AMD850

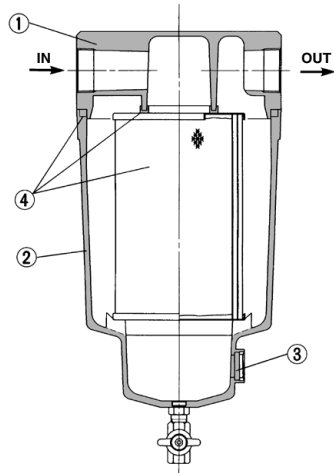


Construction

AMD150C to 550C, AMD650



AMD850



Component Parts

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

Note) Refer to "How to Order Bowl Assembly" on page 246.

Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Refer to dimensions on pages 214 through to 217 for details.

Replacement Parts

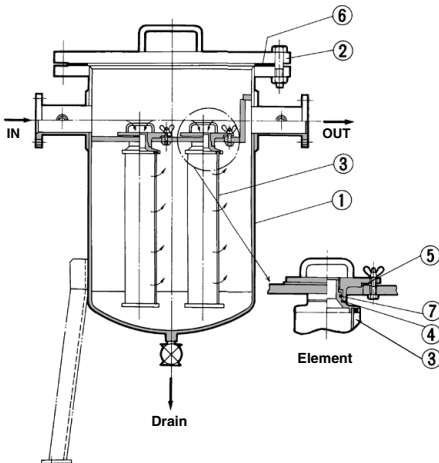
No.	Description	Material	Applicable model	Model						
				AMD150C	AMD250C	AMD350C	AMD450C	AMD550C	AMD650	AMD850
4	Element assembly	Glass fiber, others	Except option F For option F	AMD-EL150 AMD-EL150-F	AMD-EL250 AMD-EL250-F	AMD-EL350 AMD-EL350-F	AMD-EL450 AMD-EL450-F	AMD-EL550 AMD-EL550-F	AMD-EL650 —	AMD-EL850 —

* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

* Refer to page 259 for replacement of auto drain.

* Element assemblies for Made to Order (X6, X12, X15, X17, X26, X37) are same as those for standard (see the above table).

AMD80□/81□/9□0/9□1/10□0



Component Parts/Material

No.	Description	Model	
		AMD8□0/9□0/10□0	—
1	Filter case	SGP-E, SS400	—
2	Cover	SS400	—

Replacement Parts

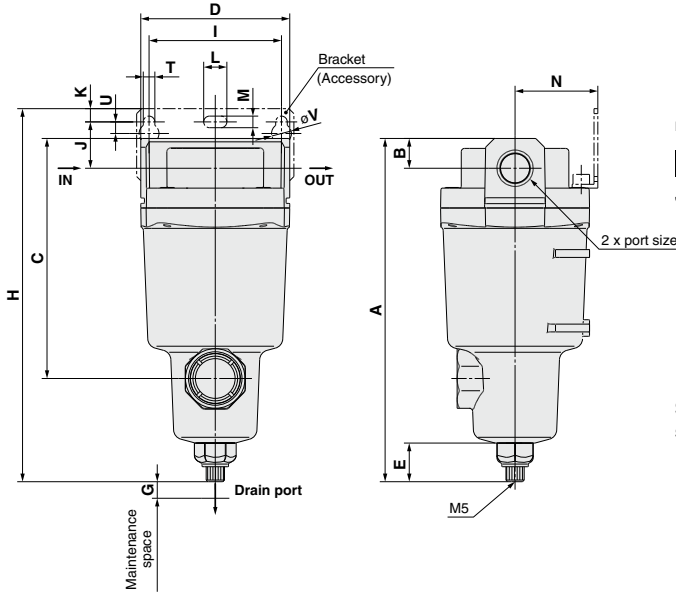
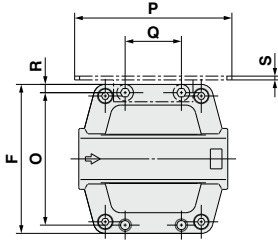
No.	Description	Material	Model		
			AMD8□0	AMD9□0	AMD10□0
3	Element	—	63174	63174 3 pcs.	63174 5 pcs.
4	Seal	NBR	63148	63148 3 pcs.	63148 5 pcs.
5	Seal	NBR	O.D112 x I.D90 x T3	O.D112 x I.D90 x T3 3 pcs.	O.D112 x I.D90 x T3 5 pcs.
6	Gasket	V#6500	AL-61S	AL-63S	AL-31S
7	O-ring	NBR	JIS B2401G35 1 pc.	JIS B2401G35 3 pcs.	JIS B2401G35 5 pcs.

- HAA
- HAW
- AT
- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD□
- GD

Series AMD

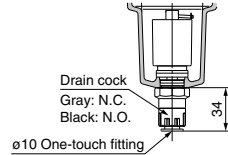
Dimensions

AMD150C to 550C

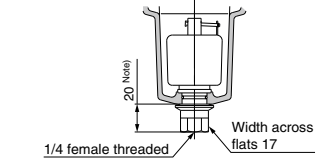


Auto drain

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



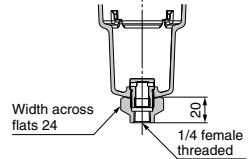
- Combination of D: With auto drain (N.O.) and H: For medium air pressure



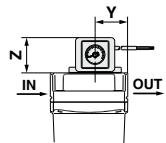
Note) 23 for AMD250C.

Option

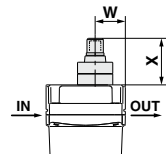
- J: Drain guide 1/4 female threaded



- S, U: With differential pressure switch (with indicator)



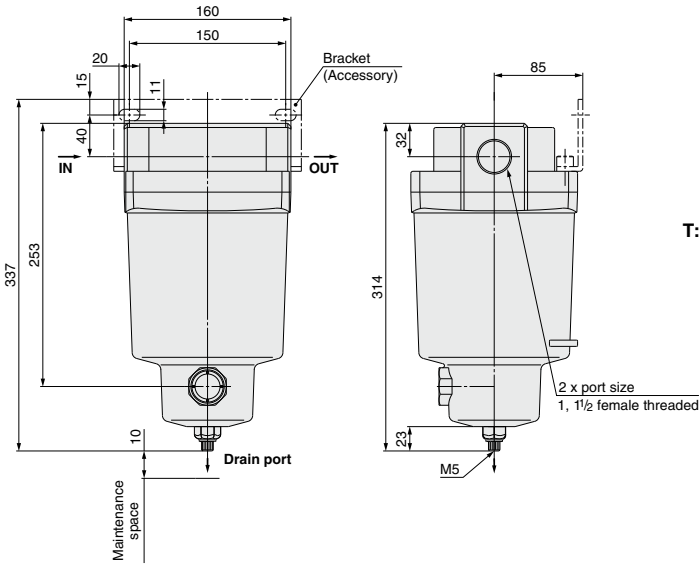
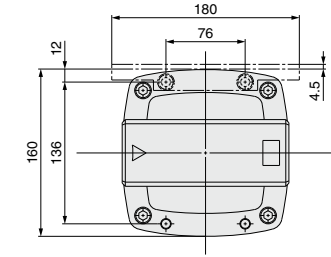
- T: With element service indicator



Model	Port size	A	B	C	D	E	F	G	Bracket related dimensions													Element service indicator related dimensions	Differential pressure switch related dimensions			
									H	I	J	K	T	U	L	M	V	N	O	P	Q			R	S	W
AMD150C	1/8, 1/4	161	10	99	63	23	63	10	176	56	20	5	6	12	6	10	35	54	70	26	4.5	1.6	24	37	32	41
AMD250C	1/4, 3/8	175	14	113	76	23	76	10	193	66	24	8	6	12	6	10	40	66	80	28	5	2	27	37	36	41
AMD350C	3/8, 1/2	207	18	145	90	23	90	10	225	80	28	8	7	14	7	12	50	80	95	34	5	2.3	32	37	42	41
AMD450C	1/2, 3/4	228	20	166	106	23	106	10	249	90	31	10	9	18	9	15	55	88	111	50	9	3.2	37	37	43	41
AMD550C	3/4, 1	262	24	200	122	23	122	15	281	100	33	10	9	18	9	15	65	102	126	60	10	3.2	39	37	51	41

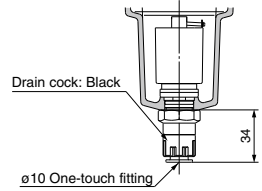
Dimensions

AMD650



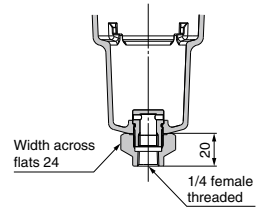
Auto drain

D: With auto drain (N.O.)

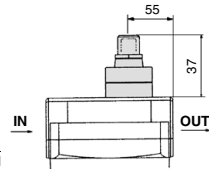


Option

J: Drain guide 1/4 female threaded



T: With element service indicator

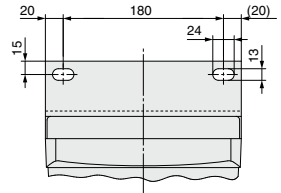
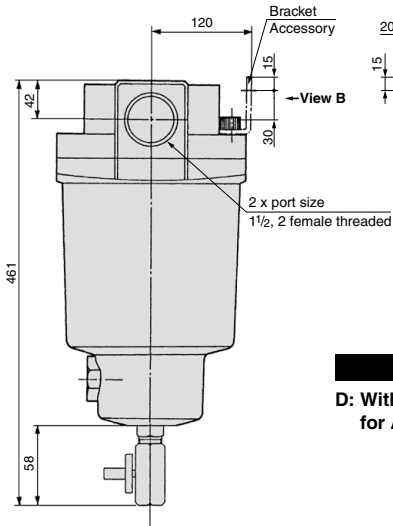
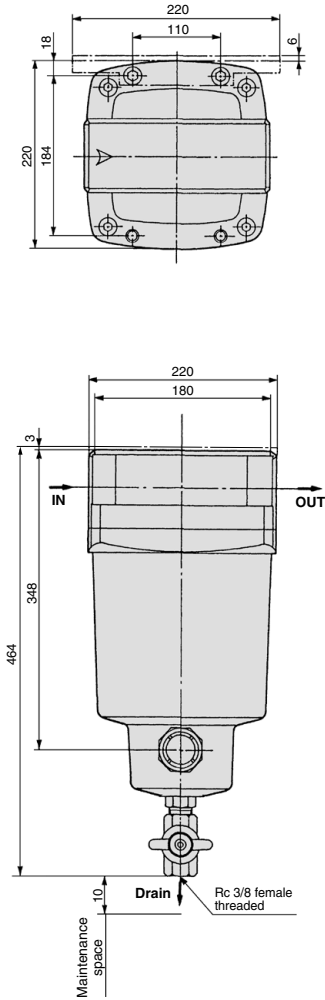


HAA
HAW
AT
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Series AMD

Dimensions

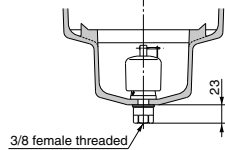
AMD850



Drawing of view B

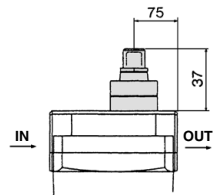
Auto drain

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



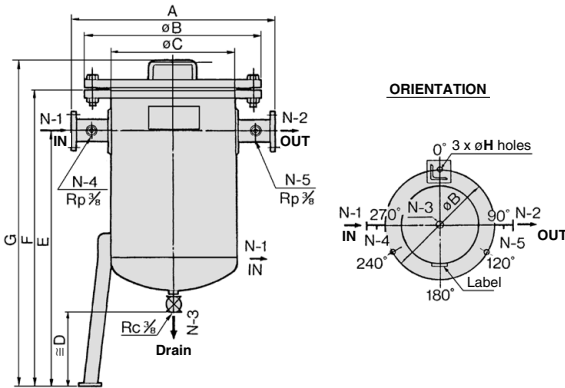
Option

T: With element service indicator



Dimensions

AMD800/810/9□0/10□0



(mm)

Model	Connection (Flange)	A	ϕB	ϕC	D	E	F	G	H	Anchor bolt
AMD8□0	50(2B), 80(3B)JIS 10K FF flange	500	300	200(8B)	300	1300	1430	1520	20	M16 x L400
AMD9□0	50(2B), 80(3B), 100(4B)JIS 10K FF flange	720	560	400	300	1320	1480	1585	24	M20 x L500
AMD10□0	100(4B), 150(6B)JIS 10K FF flange	870	745	550	300	1380	1610	1740	24	M20 x L500

- HAA
- HAW
- AT
- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD□
- GD

Micro Mist Separator with Pre-filter Series **AMH**



Can separate and remove aerosol state oil mist in compressed air and remove particles such as carbon or dust of more than 0.01 μm. Use this product as a pre-filter for compressed air for precision instruments or clean room requiring higher clean air.

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

Modular connection is possible with AMH150C to 550C. (For details, refer to page 244.)



AMH150C to 550C

AMH650/850



(Drain cock specifications)



(Auto drain specifications)



Made to Order
(For details, refer to page 250.)

Model

Model	AMH150C	AMH250C	AMH350C	AMH450C	AMH550C	AMH650	AMH850
Rated flow (L/min (ANR)) ^{Note)}	200	500	1000	2000	3700	6000	12000
Port size	1/8, 1/4	1/4, 3/8	3/8, 1/2	1/2, 3/4	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 0.7 MPa.

Max. flow capacity varies depending on the operating pressure.

Refer to "Flow Characteristics" (page 222) and "Maximum Flow Capacity Line" below.

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
Nominal filtration density	0.01 μm (Filtration efficiency: 99.9%)
Oil mist density at outlet	Max. 0.1 mg/m ³ (ANR) ^{*2)} (Before saturated with oil, less than 0.01 mg/m ³ (ANR) = 0.008 ppm)
Element life	2 years or when pressure drop reached 0.1 MPa

*1 With auto drain: 0.1 MPa (N.O. type) or 0.15 MPa (N.C. type)

*2 Oil mist density at 30 mg/m³ (ANR) blown out by compressor.

Accessory

Applicable model	AMH150C	AMH250C	AMH350C	AMH450C	AMH550C	AMH650	AMH850
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Model Selection

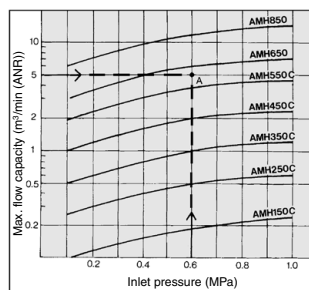
Select a model in accordance with the following procedure taking the inlet pressure and the max. flow capacity into consideration.

(Example) Inlet pressure: 0.6 MPa
Max. flow capacity: 5 m³/min (ANR)

1. Obtain the intersecting point A of inlet pressure and max. flow capacity in the graph.
2. The AMH650 is obtained when the max. flow capacity line is above the intersecting point A in the graph.

Note) Make sure to select a model that has the max. flow capacity line above the obtained intersecting point. With a model that has the max. flow capacity 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.

Maximum Flow Capacity Line



⚠ Caution

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

How to Order



AMH150C to 550C

AMH **550C** - **10** - - - -

Body size*		Thread type*	
Symbol	Type	Symbol	Type
150C		Nil	Rc
250C		F	G ^{*1}
350C		N	NPT
450C			
550C			

*1 Conforms to ISO1179-1.

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●				
02	1/4	●	●			
03	3/8		●	●		
04	1/2			●	●	
06	3/4				●	●
10	1					●

Port size*

Accessory*

Symbol	Description
Nil	—
B	Bracket *2 *3

*2 Bracket is included, (but not assembled).
*3 The model with bracket is not available for -X15 and -X17.

Made to Order

(*How to Order* and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nil	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X15	With IN-OUT flange *3	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *3	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253

Option *4

Symbol	Description
Nil	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
J	Drain guide 1/4 female threaded *5
R	IN-OUT reversal direction
S	With differential pressure switch (125 VAC, 30 VDC) *6, (Note)
U	With differential pressure switch (30 VDC) *6
T	With element service indicator
V	Degreasing wash, *7 white vaseline

*5 Drain piping and piping for a stop valve such as ball valve are required.

*6 Differential pressure switch is included, (but not assembled).

*7 Only body/housing is degreasing washed.

Note) Order "U" if conformity to the EU directive is required.

Auto drain *4

Symbol	Description
Nil	Drain cock (Without auto drain)
C	N.C. auto drain
D	N.O. auto drain

*4 Refer to "Drain Exhaust Specifications/Option Combinations". (Only one drain exhaust method can be selected.)

Drain Exhaust Specifications/Option Combinations

○: All types of drain exhaust specifications are available. (including drain guide, "J" specification)

△: N.C. auto drain ("C" specification) is not available.

▽: Both N.C. and N.O. auto drain ("C", "D" specification) are not available.

	Nil	F	H	R	S	U	T	V
Nil	○	○	△	○		Note		○
F	○		▽	○				▽
H	△		▽	△				
R	○	○	△			Note		○
S								
U	Note			Note				
T								○
V	○	▽	▽	○				○

Note: Only one drain exhaust method can be selected.

□: Not available

Options

Symbol F: Rubber material: FKM

FKM is used for the parts such as O-ring and gasket.

Symbol H: For medium air pressure (1.6 MPa)

Can be used up to 1.6 MPa at maximum.

Symbol J: Drain guide 1/4 female threaded



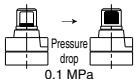
Can be piped to the drain exhaust port.

1/4 female threaded

Symbol R: IN-OUT reversal direction

Air flow in the separator is changed to right to left. (Air flow direction of the standard: Left to right.)

Symbol T: With element service indicator

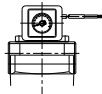


Saturation of the separator can be observed visually. (Element life check)

Symbol V: Degreasing wash, white vaseline

Body/housing is degreasing washed. The lubrication grease for O-ring and gasket is changed to white vaseline.

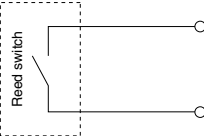
Symbol S: With differential pressure switch (with indicator)



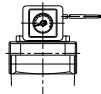
Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* The rated contact voltage is different from "U".

Max. contact capacity: 10 VA AC, 10 W DC
Rated contact voltage (max. operating current): 125 V AC (0.08 A), 30 V DC (0.33 A)



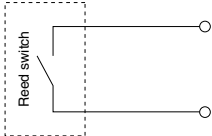
Symbol U: With differential pressure switch (with indicator)



Saturation of the separator can be observed visually or by an electrical signal. (Element life check)

* The rated contact voltage is different from "S".

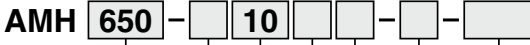
Max. contact capacity: 10 W DC
Rated contact voltage (max. operating current): 30 V DC (0.33 A)





How to Order

AMH650/850



Body size

650
850

Thread type

Symbol	Type
Nil	Rc
F	G
N	NPT

Port size

Symbol	Size	Applicable body size	
		650	850
10	1	●	—
14	1 1/2	●	●
20	2	—	●

Accessory

Symbol	Description
Nil	—
B	Bracket *1 *2

- *1 Bracket is included, (but not assembled).
- *2 The model with bracket is not available for -X15 and -X17.

Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nil	—	—
X6	With differential pressure gauge (GD40-2-01)	P.251
X37	With differential pressure switch (With indicator, 125 VAC, 30 VDC)	P.251
X15	With IN-OUT flange *2	P.252
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange *2	P.252
X26	N.C., N.O. auto drain, drain piping type	P.253
X12	White vaseline specifications	P.253

Option *3

Symbol	Description
Nil	—
J	Drain guide 1/4 female threaded *5
R	IN-OUT reversal direction
T	With element service indicator

*5 Drain piping and piping for a stop valve such as ball valve are required.

Auto drain *3

Symbol	Description
Nil	Drain cock (Without auto drain) *4
D	N.O. auto drain

*3 Refer to "Auto Drain Specifications/Option Combinations".

*4 Body size 850 is equipped with a ball valve (Rc3/8 female threaded). Mount a piping adapter IDF-AP609 (page 245) to the ball valve if NPT3/8 female threaded is required.

(Note) Refer to "How to Order Bowl Assembly" on page 246.

Auto Drain Specifications/Option Combinations

⊙: Available □: Not available

Auto drain specifications/Option			Auto drain specifications			Option			Applicable model	
			D	J	R	T	AMH650	AMH850		
Auto drain specifications	N.O. auto drain	D			⊙	⊙	⊙	⊙		
	Drain guide 1/4	J			⊙	⊙	⊙	⊙		
Option	IN-OUT reversal direction	R	⊙	⊙		⊙	⊙	⊙		
	With element service indicator	T	⊙	⊙	⊙		⊙	⊙		

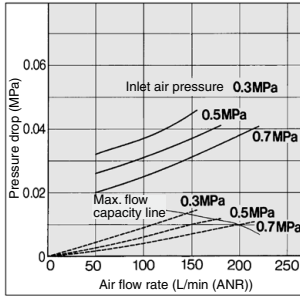
- HAA
- HAW
- AT
- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD□
- GD

Series AMH

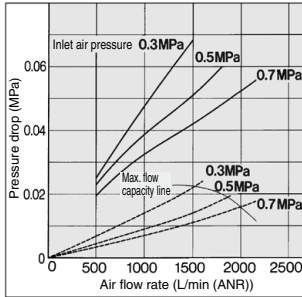
Flow Characteristics (Representative values) Select the model under the max. flow capacity line. (— Element oil saturation --- Initial condition)

Note) Compressed air over max. flow capacity line in the table below may not meet the specifications of the product.

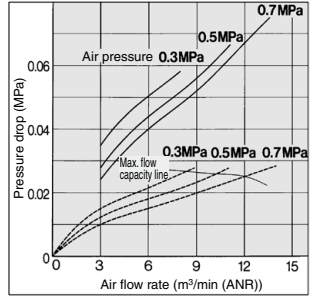
AMH150C



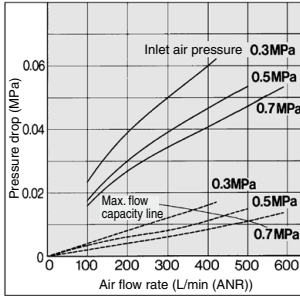
AMH450C



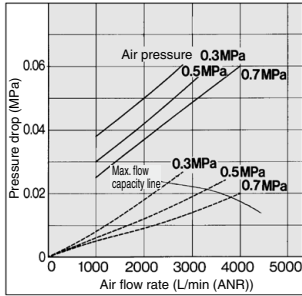
AMH850



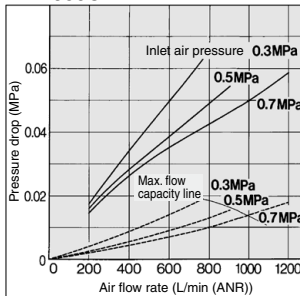
AMH250C



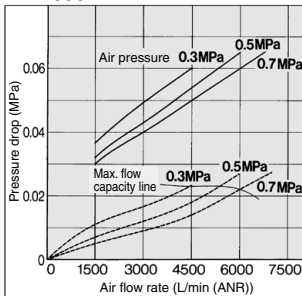
AMH550C



AMH350C

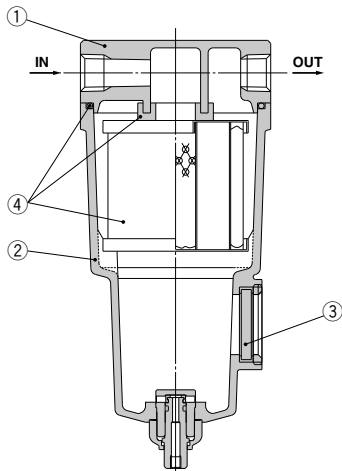


AMH650

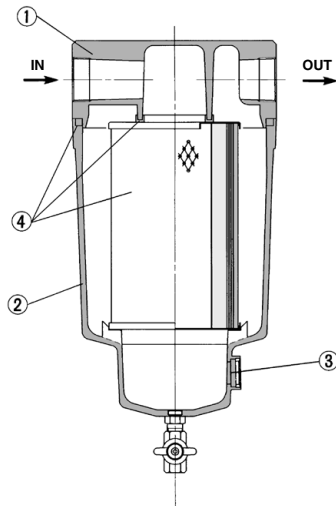


Construction

AMH150C to 550C, AMH650



AMH850



Component Parts

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

Note) Refer to "How to Order Bowl Assembly" on page 246.

Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Refer to dimensions on pages 224 through to 226 for details.

Replacement Parts

No.	Description	Material	Applicable model	Model						
				AMH150C	AMH250C	AMH350C	AMH450C	AMH550C	AMH650	AMH850
4	Element assembly	Glass fiber, others	Except option F For option F	AMH-EL150 AMH-EL150-F	AMH-EL250 AMH-EL250-F	AMH-EL350 AMH-EL350-F	AMH-EL450 AMH-EL450-F	AMH-EL550 AMH-EL550-F	AMH-EL650 —	AMH-EL850 —

* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

* Refer to page 259 for replacement of auto drain.

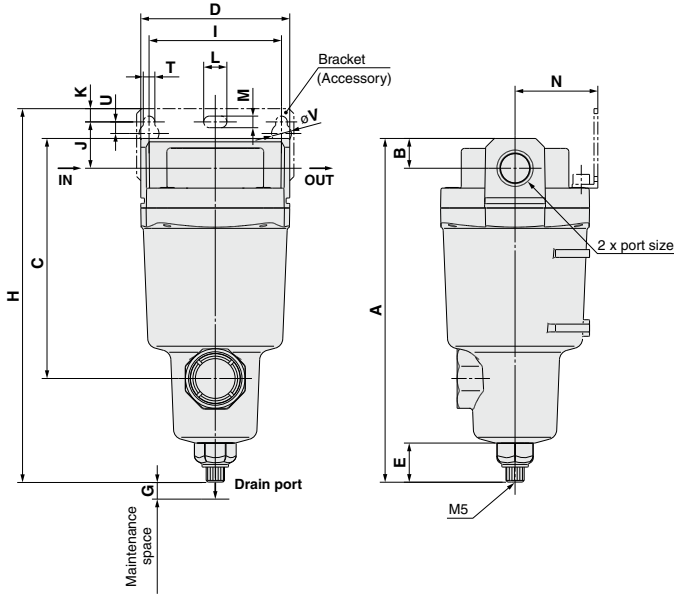
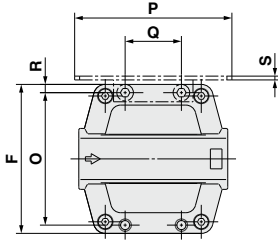
* Element assemblies for Made to Order (X6, X12, X15, X17, X20, X26, X37) are same as those for standard (see the above table).

- HAA
- HAW
- AT
- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD
- GD

Series AMH

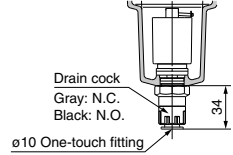
Dimensions

AMH150C to 550C

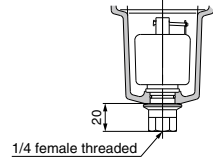


Auto drain

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

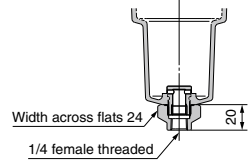


- Combination of D: With auto drain (N.O.) and H: For medium air pressure

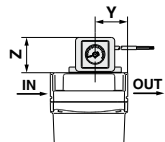


Option

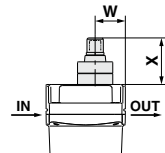
- J: Drain guide 1/4 female threaded



- S, U: With differential pressure switch (with indicator)



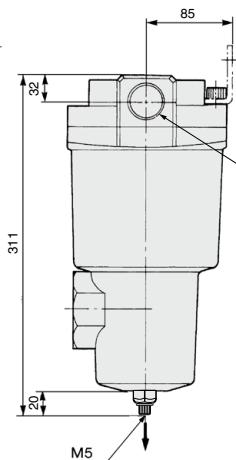
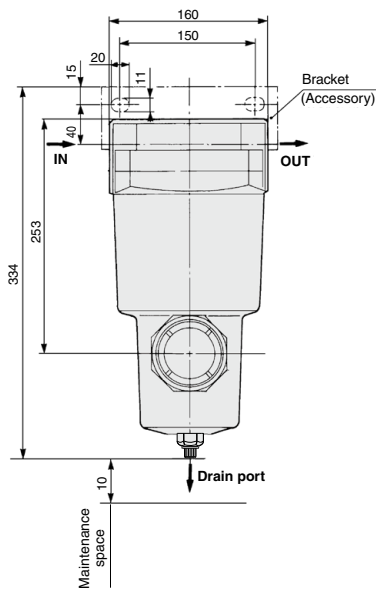
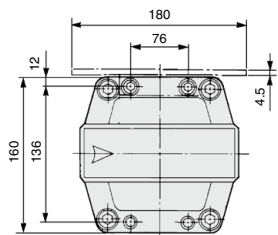
- T: With element service indicator



Model	Port size	A	B	C	D	E	F	G	Bracket related dimensions													Element service indicator related dimensions	Differential pressure switch related dimensions			
									H	I	J	K	T	U	L	M	V	N	O	P	Q			R	S	W
AMH150C	1/8, 1/4	158	10	99	63	20	63	10	173	56	20	5	6	12	6	10	35	54	70	26	4.5	1.6	24	37	32	41
AMH250C	1/4, 3/8	172	14	113	76	20	76	10	190	66	24	8	6	12	6	10	40	66	80	28	5	2	27	37	36	41
AMH350C	3/8, 1/2	204	18	145	90	20	90	10	222	80	28	8	7	14	7	12	50	80	95	34	5	2.3	32	37	42	41
AMH450C	1/2, 3/4	225	20	166	106	20	106	10	246	90	31	10	9	18	9	15	55	88	111	50	9	3.2	37	37	43	41
AMH550C	3/4, 1	259	24	200	122	20	122	15	278	100	33	10	9	18	9	15	65	102	126	60	10	3.2	39	37	51	41

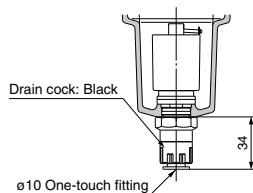
Dimensions

AMH650



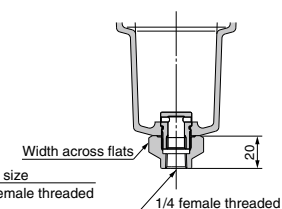
Auto drain

D: With auto drain (N.O.)

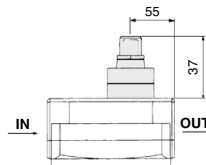


Option

J: Drain guide 1/4 female threaded



T: With element service indicator

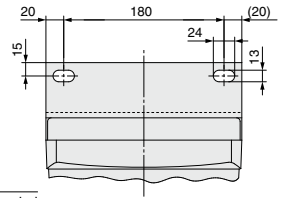
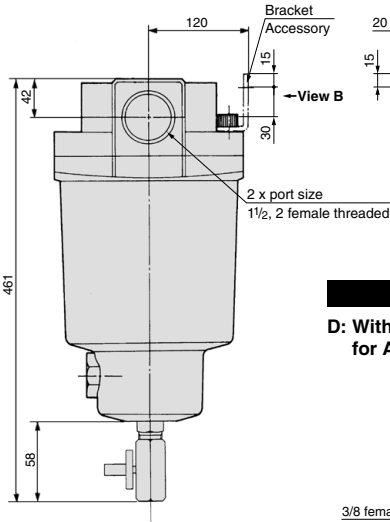
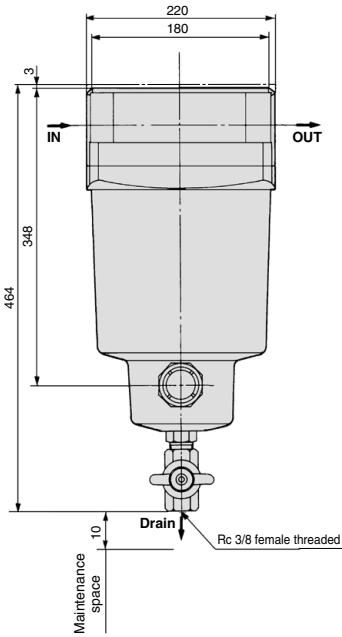
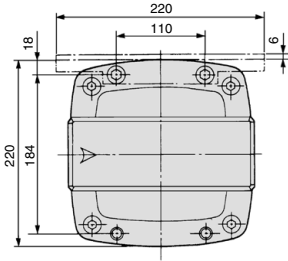


HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD
GD

Series AMH

Dimensions

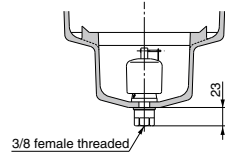
AMH850



Drawing of view B

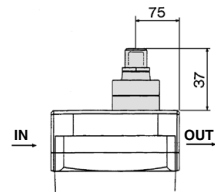
Auto drain

D: With auto drain (N.O.)
for AMH850



Option

T: With element service indicator



Super Mist Separator

Series AME

RoHS

Can separate and adsorb aerosol state fine oil particles in compressed air and change the oil lubricating compressed air to oilless air or equivalent.

Use this product for filtration of compressed air requiring higher clean air for painting lines, compressed air for clean rooms and/or equipment where oils must be avoided.

Indicates the filter element life by a color change. Accordingly, the replacement time can be judged visually. (A red color spot indicates the replacement time.)

Caution

By all means the "AM" series should be used as a pre-filter.

Modular connection is possible with AME150C to 550C.

(For details, refer to page 244.)



AME150C to 350C AME450C/550C



AME650/850



Made to Order

(For details, refer to page 250.)

Model

Model	AME150C	AME250C	AME350C	AME450C	AME550C	AME650	AME850
Rated flow (L/min (ANR))	200	500	1000	2000	3700	6000	12000
Port size	1/8, 1/4	1/4, 3/8	3/8, 1/2	1/2, 3/4	3/4, 1	1, 1 1/2	1 1/2, 2
Weight (kg)	0.3	0.48	0.8	1.3	2.0	4.2	10.5

Note) Max. flow capacity at 0.7 MPa.

Max. flow capacity varies depending on the operating pressure.

Refer to "Flow Characteristics" and "Maximum Flow Capacity Line" (page 230).

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 rating	0.01 μm (Filtration efficiency: 99.9%)
Cleanliness at outlet	Less than 100 particles of 0.3 μm or larger per cubic foot [Less than 35 particles per 10 liters (ANR)]
Oil mist density at outlet	Max. 0.01 mg/m ³ (ANR) (=0.008 ppm)
Element life	1. Element color indicator (Replace the element when a red color spot occurred on the surface.) 2. Even if a red color spot does not appear on the surface, the replacement interval for the element is when the pressure drop reaches 0.1 MPa or after two years of operation, whichever comes first.

Accessory

Applicable model	AME150C	AME250C	AME350C	AME450C	AME550C	AME650	AME850
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Caution

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

HAA
HAW

AT

IDF
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IDFB

IDH

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IDG

IDK

AMG

AFF

AM

AMD

AMH

AME

AMF

ZFC

SF

SFD

LLB

AD

GD

How to Order



AME150C to 550C

AME **550C** - **10** -

Body size

150C
250C
350C
450C
550C

Thread type

Symbol	Type
Nll	Rc
F	G ^{*1}
N	NPT

*1 Conforms to ISO1179-1.

Option

Symbol	Description
Nll	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
R	IN-OUT reversal direction
V	Degreasing wash, *3 white vaseline

*3 Only body/housing is degreasing washed.

Accessory

Symbol	Description
Nll	—
B	Bracket *2

*2 Bracket is included, (but not assembled).

Port size

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●				
02	1/4	●	●			
03	3/8		●	●		
04	1/2			●	●	
06	3/4				●	●
10	1					●

Options

Symbol F: Rubber material: FKM

FKM is used for the parts such as O-ring and gasket.

Symbol H: For medium air pressure (1.6 MPa)

Can be used up to 1.6 MPa at maximum.

Symbol R: IN-OUT reversal direction

Air flow in the separator is changed to right to left.
(Air flow direction of the standard: Left to right.)

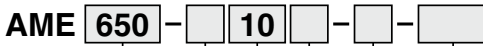
Symbol V: Degreasing wash, white vaseline

Body/housing is degreasing washed. The lubrication grease for O-ring and gasket is changed to white vaseline.



How to Order

AME650/850



Body size

650
850

Thread type

Symbol	Type
NII	Rc
F	G
N	NPT

Port size

Symbol	Size	Applicable body size	
		650	850
10	1	●	—
14	1 1/2	●	●
20	2	—	●

Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to the page "Made to Order".)

Symbol	Description	Page for details
NII	—	—
X12	White vaseline specifications	P.253

Option

Symbol	Description
NII	—
R	IN-OUT reversal direction

Accessory

Symbol	Description
NII	—
B	Bracket*

* Bracket is included, (but not assembled).

Note) Refer to "How to Order Bowl Assembly" on page 246.

HAA
HAW

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IDU

IDFA

IDFB

IDH

ID

IDG

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AMG

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AMD

AMH

AME

AMF

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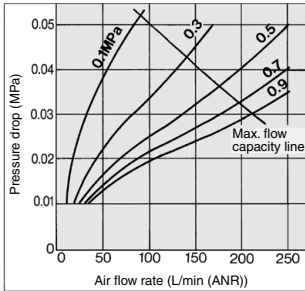
GD

Series AME

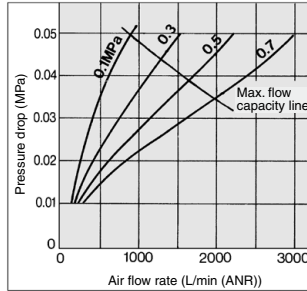
Flow Characteristics (Representative values) / Select the model under the max. flow capacity line. (Element initial condition)

Note) Compressed air over max. flow capacity line in the table below may not meet the specifications of the product.

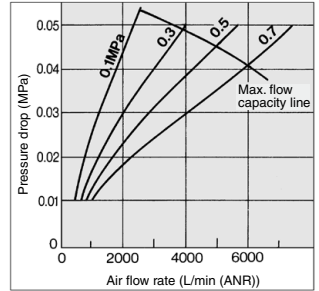
AME150C



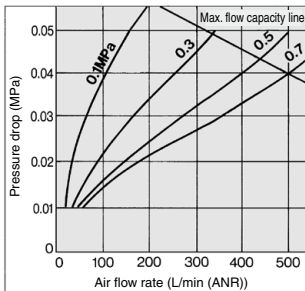
AME450C



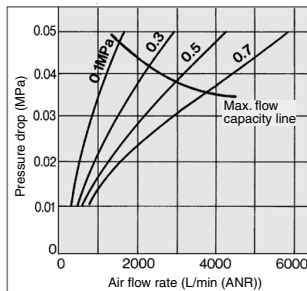
AME650



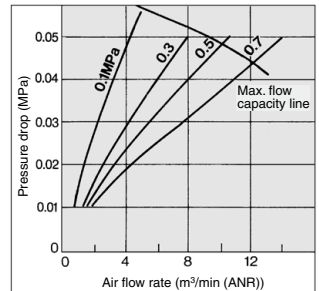
AME250C



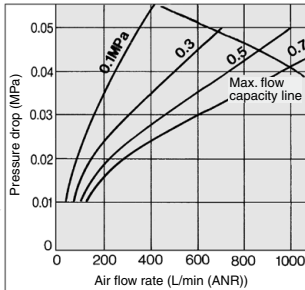
AME550C



AME850



AME350C



Model Selection

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

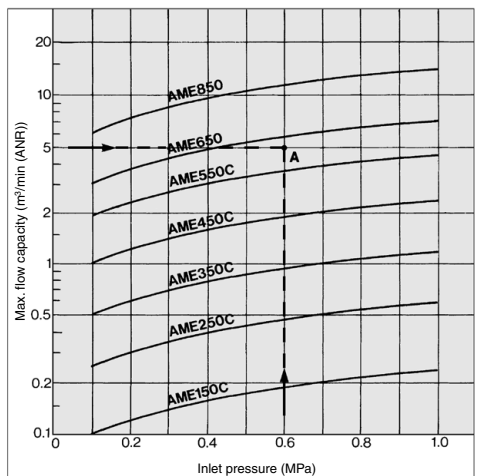
(Example) Inlet pressure: 0.6 MPa

Max. flow capacity: 5 m³/min (ANR)

1. Obtain the intersecting point A of inlet pressure and max. flow capacity in the graph.
2. The AME650 is obtained when the max. flow capacity line is above the intersecting point A in the graph.

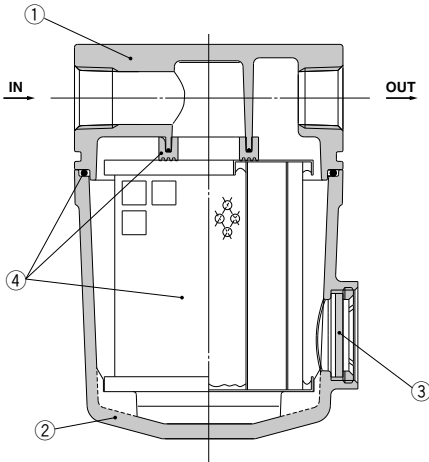
Note) Make sure to select a model that has the max. flow capacity line above the obtained intersecting point. With a model that has the max. flow capacity line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

Maximum Flow Capacity Line

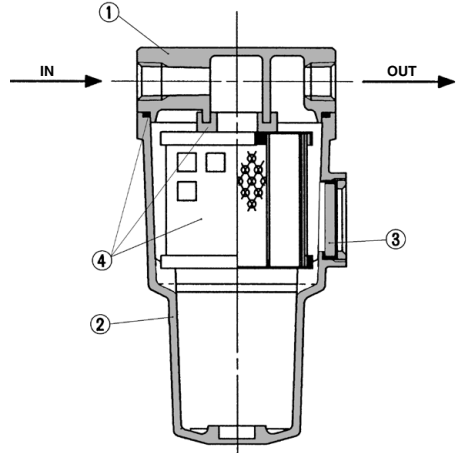


Construction

AME150C to 550C



AME650/850



Component Parts

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

Note) Refer to "How to Order Bowl Assembly" on page 246.

Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Refer to dimensions on pages 232 through to 234 for details.

Replacement Parts

No.	Description	Material	Applicable model	Model						
				AME150C	AME250C	AME350C	AME450C	AME550C	AME650	AME850
4	Element assembly	Glass fiber, others	Except option F For option F	AME-EL150 AME-EL150-F	AME-EL250 AME-EL250-F	AME-EL350 AME-EL350-F	AME-EL450 AME-EL450-F	AME-EL550 AME-EL550-F	AME-EL650 —	AME-EL850 —

* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

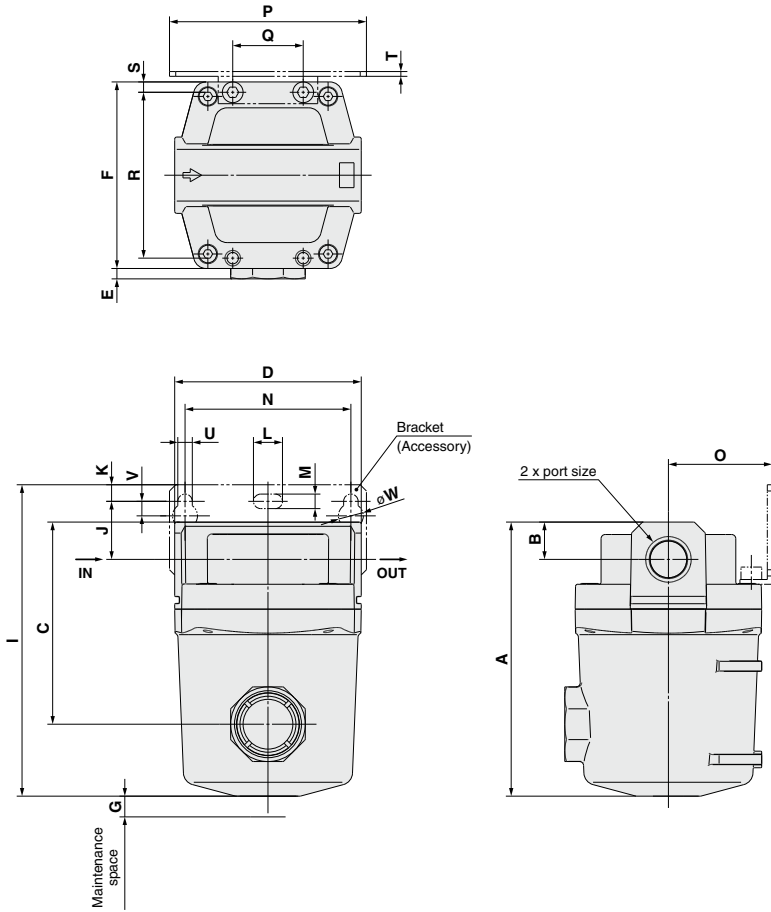
* Element assemblies for Made to Order (X12, X20) are same as those for standard (see the above table).

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GD

Series AME

Dimensions

AME150C to 350C

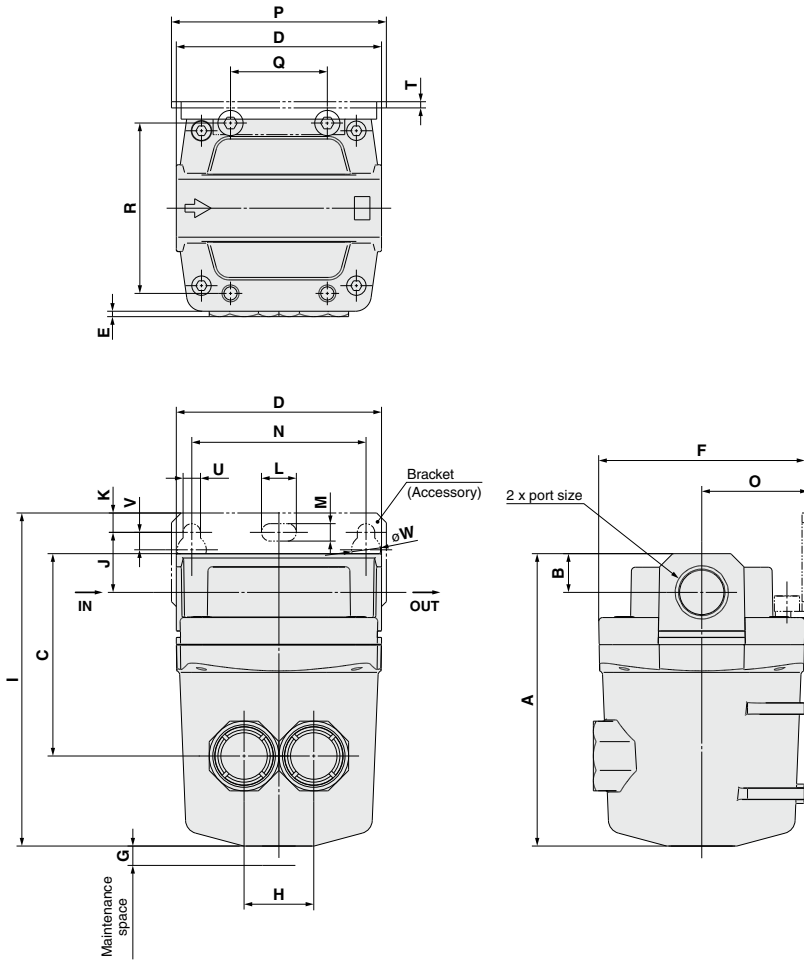


(mm)

Model	Port size	A	B	C	D	E	F	G	Bracket related dimensions														
									I	N	J	K	U	V	L	M	W	O	P	Q	R	S	T
AME150C	1/8, 1/4	83	10	54	63	7.5	63	10	99	56	20	5	6	6	12	6	10	35	70	26	54	4.5	1.6
AME250C	1/4, 3/8	103	14	73	76	5	76	10	121	66	24	8	6	6	12	6	10	40	80	28	66	5	2
AME350C	3/8, 1/2	132	18	98	90	5	90	10	150	80	28	8	7	7	14	7	12	50	95	34	80	5	2.3

Dimensions

AME450C/550C



- HAA
- HAW
- AT
- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD
- AMH
- AME**
- AMF
- ZFC
- SF
- SFD
- LLB
- AD
- GD

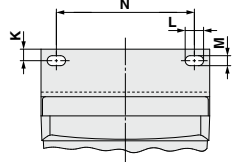
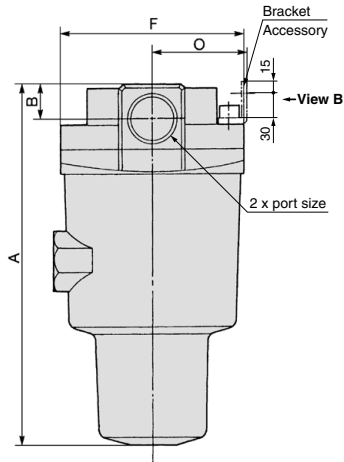
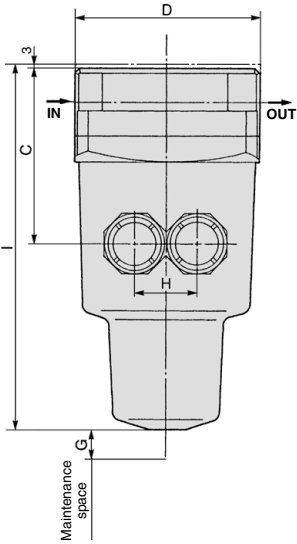
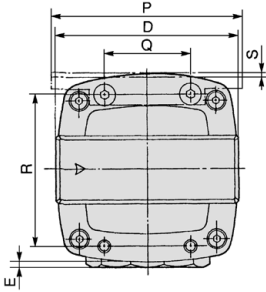
(mm)

Model	Port size	A	B	C	D	E	F	G	H	Bracket related dimensions													
										I	N	J	K	U	V	L	M	W	O	P	Q	R	T
AME450C	1/2, 3/4	151	20	105	106	3	106	10	36	172	90	31	10	9	9	18	9	15	55	111	50	88	3.2
AME550C	3/4, 1	187	24	130	122	3	122	15	44	206	100	33	10	9	9	18	9	15	65	126	60	102	3.2

Series AME

Dimensions

AME650/850



Drawing of view B

(mm)

Model	Port size	A	B	C	D	E	F	G	H	Bracket related dimensions										
										I	J	K	L	M	N	O	P	Q	R	S
AME650	1, 1½	291	32	167	160	—	160	10	66	314	40	15	20	11	150	85	180	76	136	4.5
AME850	1½, 2	403	42	235	220	—	220	10	96	406	30	15	24	13	180	120	220	110	184	6

Odor Removal Filter Series AMF

RoHS

Efficiently can remove odor in compressed air with an activated carbon element. The unit is designed for use in the area such as a clean room where odors must be avoided.

Can remove odor and gas ingredients in compressed air. Activated carbon element with large filtration area. Easy replacement of elements.

Modular connection is possible with AMF150C to 550C. (For details, refer to page 244.)



AMF150C to 350C AMF450C/550C



AMF650/850



Made to Order
(For details, refer to page 250.)

Model

Model	AMF150C	AMF250C	AMF350C	AMF450C	AMF550C	AMF650	AMF850
Rated flow (L/min (ANR))	200	500	1000	2000	3700	6000	12000
Port size	1/8, 1/4	1/4, 3/8	3/8, 1/2	1/2, 3/4	3/4, 1	1, 1 1/2	1 1/2, 2
Weight (kg)	0.3	0.48	0.8	1.3	2.0	4.2	10.5

Note) Max. flow capacity at 0.7 MPa.

Max. flow capacity varies depending on the operating pressure.

Refer to "Flow Characteristics" (page 238) and "Maximum Flow Capacity Line" (page 237).

Model/Free Standing Type

Model	AMF800	AMF900	AMF1000
Rated flow (L/min (ANR))	8000	24000	40000
Port size	50 (2B) JIS 10K FF flange	50 (2B), 80 (3B), 100 (4B) JIS 10K FF flange	100 (4B), 150 (6B) JIS 10K FF flange
Weight (kg)	90	200	410

Specifications

Fluid	Compressed air
Max. operating pressure	1.0 MPa Note)
Min. operating pressure	0.05 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Nominal filtration rating	0.01 μm (Filtration efficiency: 99.9%)
Cleanliness at outlet	Less than 100 particles of 0.3 μm or larger per cubic foot [Less than 35 particles per 10 liters (ANR)] (The "AME" series is required on the inlet side.)
Oil mist density at outlet	Max. 0.004 mg/m ³ (ANR) (= 0.0032 ppm) (The "AME" series is required on the inlet side.)
Element life	1. Replace the element when you smell oil on the outlet side. 2. Even if the deodorization performance is normal, the replacement interval for the element is when the pressure drop reaches 0.1 MPa or after two years of operation, whichever comes first.

Note) AMF800 to AMF1000: 0.97 MPa

Accessory (Option)

Applicable model	AMF150C	AMF250C	AMF350C	AMF450C	AMF550C	AMF650	AMF850
Bracket assembly (with 2 mounting screws)	AM-BM101	AM-BM102	AM-BM103	AM-BM104	AM-BM105	BM56	BM57

Caution

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

HAA
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AMH

AME

AMF

ZFC

SF

SFD

LLB

AD

GD

How to Order



AMF150C to 550C

AMF **550C** - **10** -

Body size

150C
250C
350C
450C
550C

Thread type

Symbol	Type
Nll	Rc
F	G ^{*1}
N	NPT

*1 Conforms to ISO1179-1.

Option

Symbol	Description
Nll	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
R	IN-OUT reversal direction
V	Degreasing wash, *3 white vaseline

*3 Only body/housing is degreasing washed.

Accessory

Symbol	Description
Nll	—
B	Bracket *2

*2 Bracket is included, (but not assembled).

Port size

Symbol	Size	Applicable body size				
		150C	250C	350C	450C	550C
01	1/8	●				
02	1/4	●	●			
03	3/8		●	●		
04	1/2			●	●	
06	3/4				●	●
10	1					●

Options

Symbol F: Rubber material: FKM

FKM is used for the parts such as O-ring and gasket.

Symbol H: For medium air pressure (1.6 MPa)

Can be used up to 1.6 MPa at maximum.

Symbol R: IN-OUT reversal direction

Air flow in the separator is changed to right to left.
(Air flow direction of the standard: Left to right.)

Symbol V: Degreasing wash, white vaseline

Body/housing is degreasing washed. The lubrication grease for O-ring and gasket is changed to white vaseline.



How to Order

AMF650/850

AMF **650** - [] **10** [] - [] - []

Body size

650
850

Thread type

Symbol	Type
Nil	Rc
F	G
N	NPT

Port size

Symbol	Size	Applicable body size	
		650	850
10	1	●	—
14	1½	●	●
20	2	—	●

Made to Order

("How to Order" and the applicable models are different from those shown on this page. Be sure to refer to "Made to Order".)

Symbol	Description	Page for details
Nil	—	—
X12	White vaseline specifications	P.253

Option

Symbol	Description
Nil	—
R	IN-OUT reversal direction

Accessory

Symbol	Description
Nil	—
B	Bracket*

* Bracket is included, (but not assembled).

(Note) Refer to "How to Order Bowl Assembly" on page 246.

Free standing type AMF800 to 1000

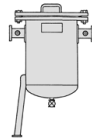
AMF **80** **0** - **20**

Body size

80
90
100

Vessel shape

Free standing type



Port size

Symbol	Size	Applicable body size		
		800	900	1000
20	50 (2B) JIS 10K FF flange	●	●	—
30	80 (3B) JIS 10K FF flange	—	●	—
40	100 (4B) JIS 10K FF flange	—	●	●
60	150 (6B) JIS 10K FF flange	—	—	●

Model Selection

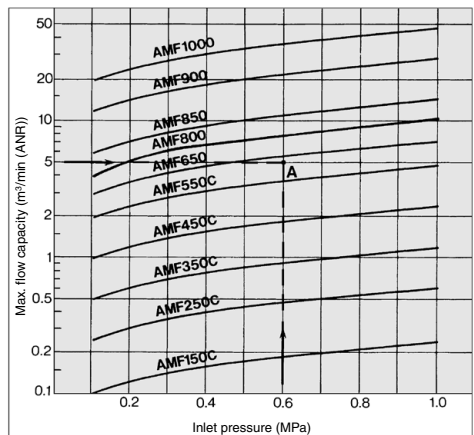
Select a model in accordance with the following procedure taking the inlet pressure and the max. flow capacity into consideration.
(Example) Inlet pressure: 0.6 MPa

Max. flow capacity: 5 m³/min (ANRP)

1. Obtain the intersecting point A of inlet pressure and max. flow capacity in the graph.
2. The AMF650 is obtained when the max. flow capacity line is above the intersecting point A in the graph.

(Note) Make sure to select a model that has the max. flow capacity line above the obtained intersecting point. With a model that has the max. flow capacity 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.

Maximum Flow Capacity Line



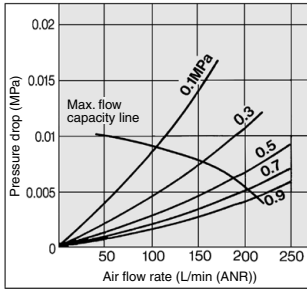
- HAA
- HAW
- AT
- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD
- AMH
- AME
- AMF
- ZFC
- SF
- SFD
- LLB
- AD
- GD

Series AMF

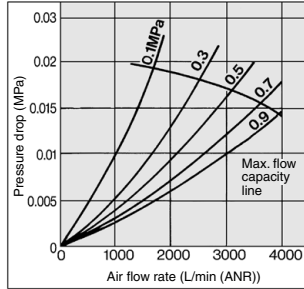
Flow Characteristics (Representative values) Select the model under the max. flow capacity line. (Element initial condition)

Note) Compressed air over max. flow line in the table below may not meet the specifications of the product.

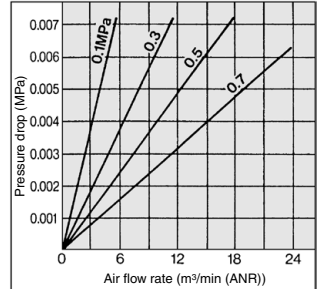
AMF150C



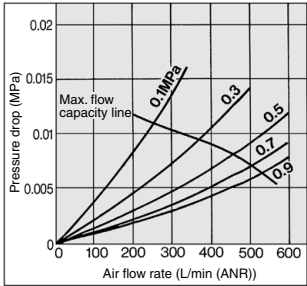
AMF550C



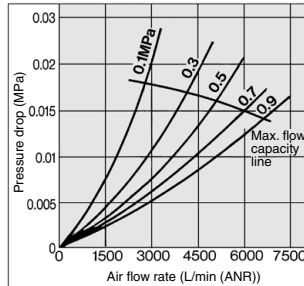
AMF900



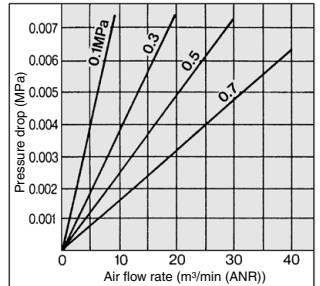
AMF250C



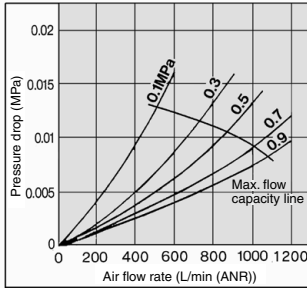
AMF650



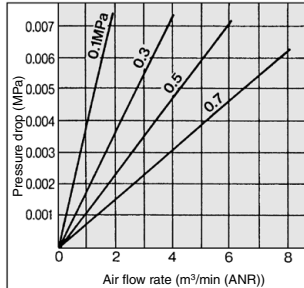
AMF1000



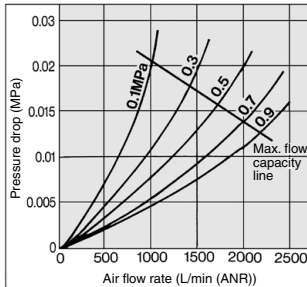
AMF350C



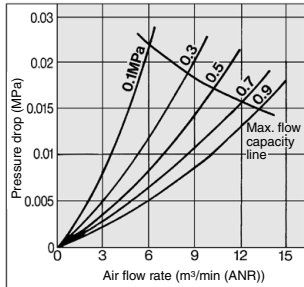
AMF800



AMF450C

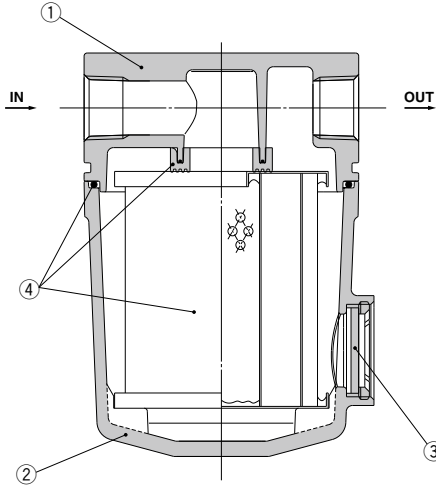


AMF850

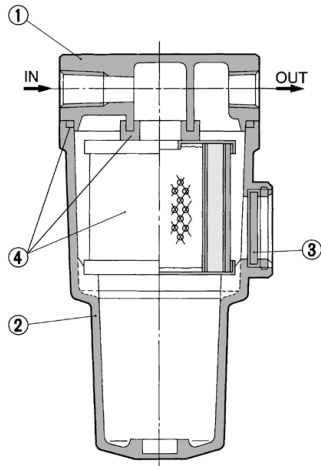


Construction

AMF150C to 550C



AMF650/850



Component Parts

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

Note) Refer to "How to Order Bowl Assembly" on page 246.

Note) Sight glass is indicated in the figure for easy understanding of component parts. However, it differs from the actual construction. Refer to dimensions on pages 240 to 243 for details.

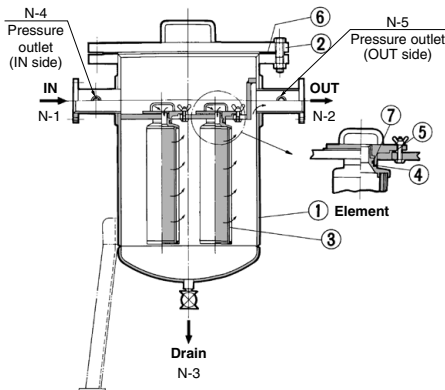
Replacement Parts

No.	Description	Material	Applicable model	Model						
				AMF150C	AMF250C	AMF350C	AMF450C	AMF550C	AMF650	AMF850
4	Element assembly	Glass fiber, others	Except option F For option F	AMF-EL150	AMF-EL250	AMF-EL350	AMF-EL450	AMF-EL550	AMF-EL650	AMF-EL850
				AMF-EL150-F	AMF-EL250-F	AMF-EL350-F	AMF-EL450-F	AMF-EL550-F	—	—

* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

* Element assemblies for Made to Order (X12, X20) are same as those for standard (see the above table).

AMF800/900/1000



Component Parts/Material

No.	Description	Model		
		AMF800	AMF900	AMF1000
1	Filter case	—	63271	63271 3 pcs.
2	Cover	—	—	SS400

Replacement Parts

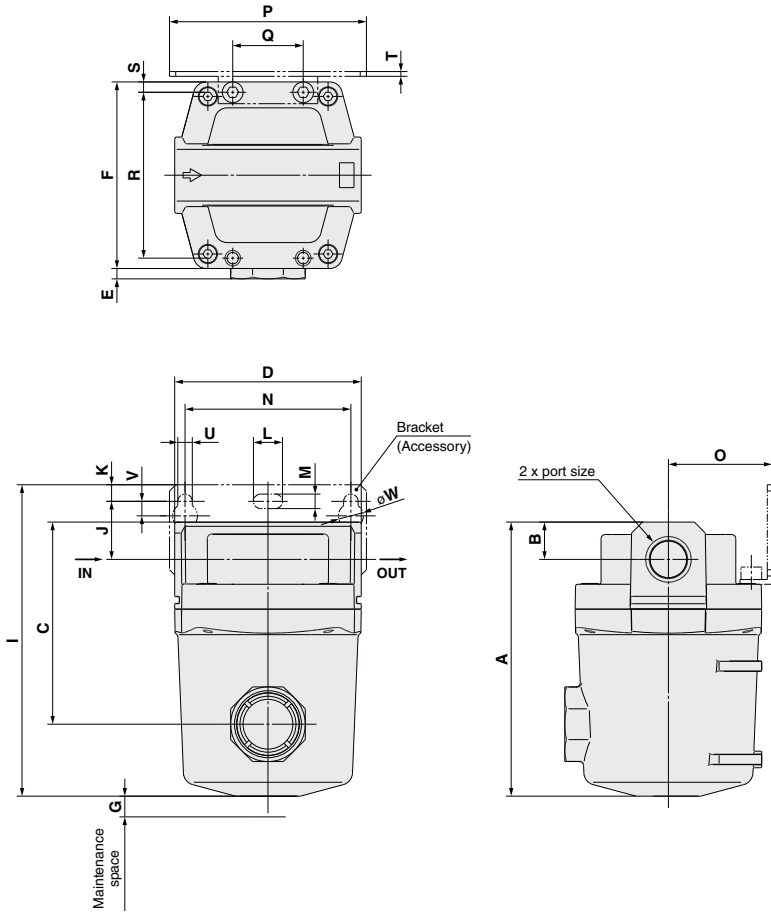
No.	Description	Material	Model		
			AMF800	AMF900	AMF1000
3	Element	—	63271	63271 3 pcs.	63271 5 pcs.
4	Seal	NBR	63148	63148 3 pcs.	63148 5 pcs.
5	Seal	NBR	O.D112 x I.D90 x T3 1 pc.	O.D112 x I.D90 x T3 3 pcs.	O.D112 x I.D90 x T3 5 pcs.
6	Gasket	V#6500	AL-61S	AL-63S 3 pcs.	AL-31S
7	O-ring	NBR	JIS B2401G35 1 pc.	JIS B2401G35 3 pcs.	JIS B2401G35 5 pcs.

HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD
GD

Series AMF

Dimensions

AMF150C to 350C

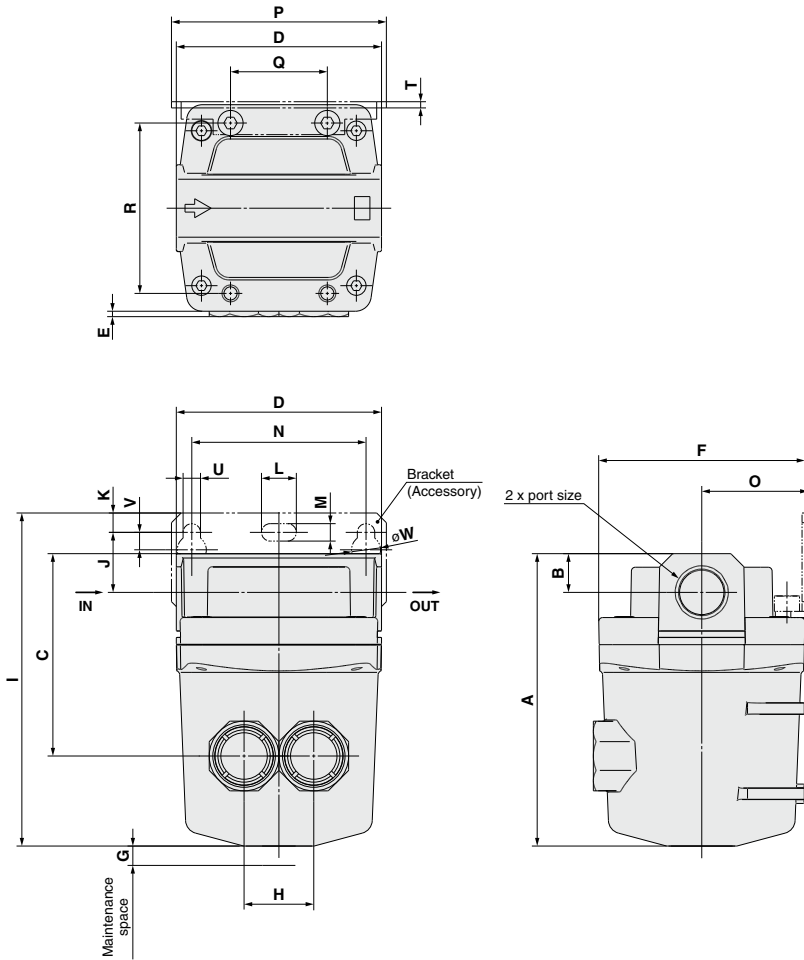


(mm)

Model	Port size	A	B	C	D	E	F	G	Bracket related dimensions														
									I	N	J	K	U	V	L	M	W	O	P	Q	R	S	T
AMF150C	1/8, 1/4	83	10	54	63	7.5	63	10	99	56	20	5	6	6	12	6	10	35	70	26	54	4.5	1.6
AMF250C	1/4, 3/8	103	14	73	76	5	76	10	121	66	24	8	6	6	12	6	10	40	80	28	66	5	2
AMF350C	3/8, 1/2	132	18	98	90	5	90	10	150	80	28	8	7	7	14	7	12	50	95	34	80	5	2.3

Dimensions

AMF450C/550C



HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD
GD

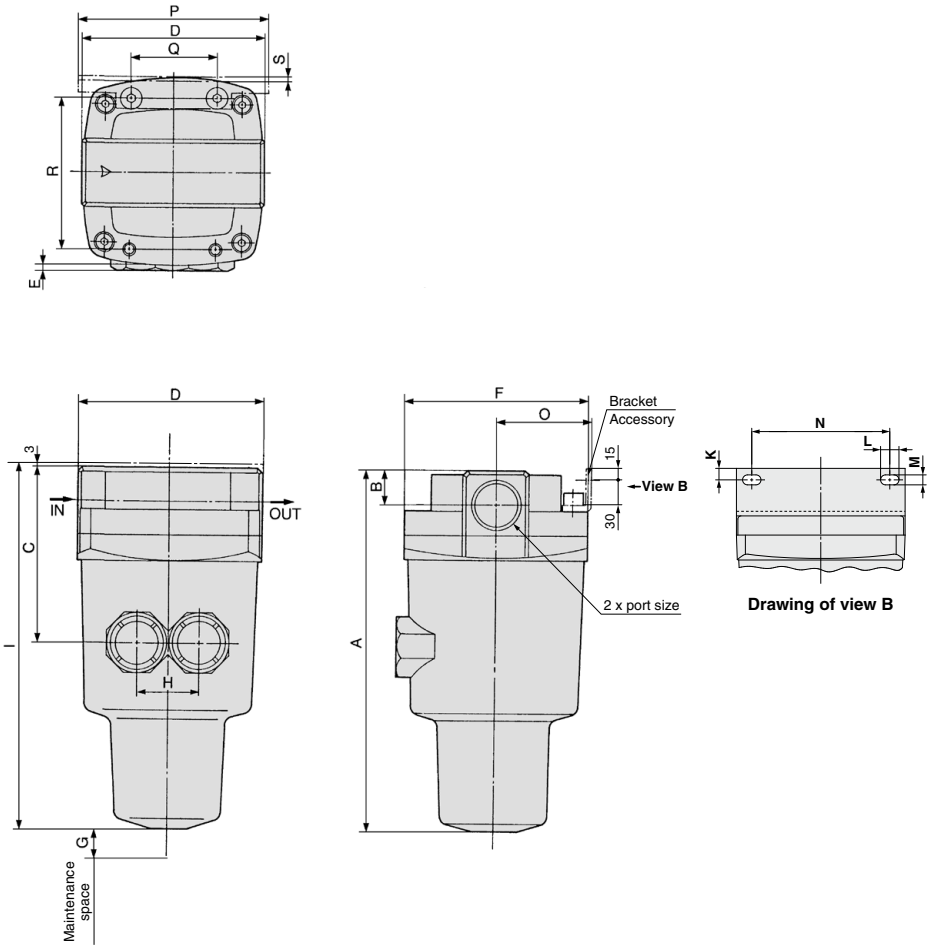
(mm)

Model	Port size	A	B	C	D	E	F	G	H	Bracket related dimensions													
										I	N	J	K	U	V	L	M	W	O	P	Q	R	T
AMF450C	1/2, 3/4	151	20	105	106	3	106	10	36	172	90	31	10	9	9	18	9	15	55	111	50	88	3.2
AMF550C	3/4, 1	187	24	130	122	3	122	15	44	206	100	33	10	9	9	18	9	15	65	126	60	102	3.2

Series AMF

Dimensions

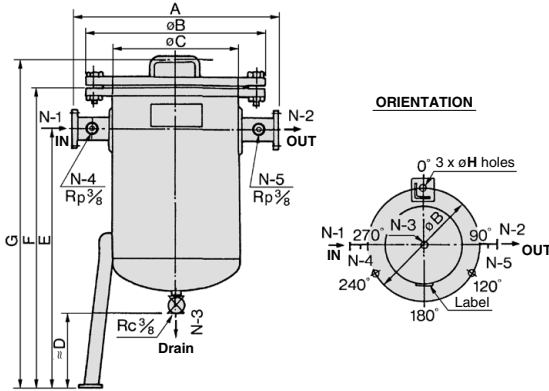
AMF650/850



Model	Port size	A	B	C	D	E	F	G	H	Bracket related dimensions									
										I	K	L	M	N	O	P	Q	R	S
AMF650	1, 1½	291	32	167	160	—	160	10	66	314	15	20	11	150	85	180	76	136	4.5
AMF850	1½, 2	403	42	235	220	—	220	10	96	406	15	24	13	180	120	220	110	184	6

Dimensions

AMF800/900/1000



(mm)										
Model	Connection (Flange)	A	øB	øC	D	E	F	G	H	Anchor bolt
AMF800	50 (2B) JIS 10K FF flange	500	330	200(8B)	300	1070	1200	1290	20	M16 x L400
AMF900	50 (2B), 80 (3B), 100 (4B) JIS 10K FF flange	720	560	400	300	1070	1230	1335	24	M20 x L500
AMF1000	100 (4B), 150 (6B) JIS 10K FF flange	870	745	550	300	1090	1320	1450	24	M20 x L500

- HAA
- HAW
- AT
- IDF
- IDU
- IDFA
- IDFB
- IDH
- ID
- IDG
- IDK
- AMG
- AFF
- AM
- AMD
- AMH
- AME
- AMF**
- ZFC
- SF
- SFD
- LLB
- AD□
- GD

Optional Accessories

Spacer for Modular Connection

Select a spacer from those listed below when combining modular type AFF2C to 22C, AM□150C to 550C. The spacer must be ordered separately.

(Note: Spacer with bracket (Y200T to Y600T) cannot be used.)

⚠ Caution

- **Modular connection**
- Mount the attached bracket on one side when connecting 2 sets.
- Mount the attached brackets on both sides when connecting 3 sets or more.
- As a guideline for the number of brackets, one bracket should be mounted for every 2 products.



Combination examples of modular applicable products

Arrangement example

AMH250C-□□B — 1 pc.

AME250C — 1 pc.

Y300 — 1 pc.

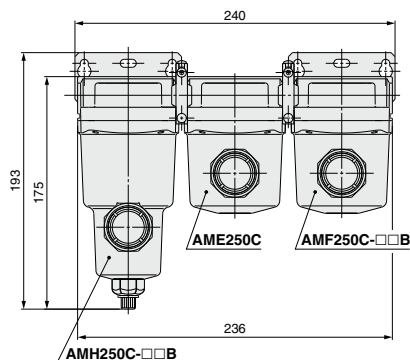
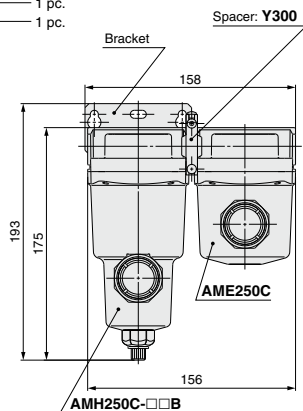
Arrangement example

AMH250C-□□B — 1 pc.

AME250C — 1 pc.

AMF250C-□□B — 1 pc.

Y300 — 2 pcs.



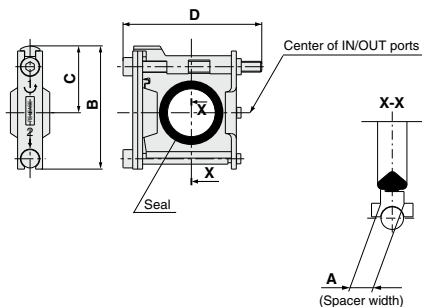
Spacer



Y200



Y400

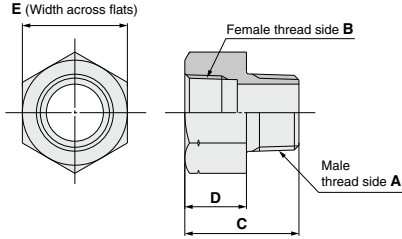


Model	A	B	C	D	Model
Y200	3	35.5	18.5	48	AFF2C, AM□150C
Y300	4	47	26	59	AFF4C, AM□250C
Y400	5	57	31	65	AFF8C, AM□350C
Y500	5	61	33	75	AFF11C, AM□450C
Y600	6	75.5	41	86	AFF22C, AM□550C

Replacement Parts

Description	Material	Part no.				
		Y200	Y300	Y400	Y500	Y600
Seal	HNBR	Y200P-061S	Y300P-060S	Y400P-060S	Y500P-060S	Y600P-060S

Piping Adapter



Dimensions

(mm)

Part no.	Thread type and port size		C	D	E	Material
	Male thread side A	Female thread side B				
IDF-AP609	R 3/8	NPT 3/8	30	15	22	Brass

HAA
HAW

AT

IDF
IDU

IDFA

IDFB

IDH

ID

IDG

IDK

AMG

AFF

AM

AMD

AMH

AME

AMF

ZFC

SF

SFD

LLB

AD□

GD

Bowl Assembly

AFF-CA□/AM□-CA□

RoHS

Bowl Assembly

Bowl assembly for the AFF and AM□ series 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

■ AFF2C to 22C, AM, AMD, AMH, AMG150C to 550C

AM - CA □ - □ - □ - □

Body size

150C
250C
350C
450C
550C

Option

Symbol	Description
Nil	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
V	Degreasing wash, white vaseline

Drain exhaust

Symbol	Description
A	With drain cock
C	With N.C. auto drain
D	With N.O. auto drain
J	With drain guide ^{Note 1)}

Note 1) Drain piping and piping for a stop valve such as a ball valve are required.

Thread type ^{Note 2)}

Symbol	Type
Nil	Rc
F ^{Note 3)}	G
N	NPT

Note 2) Corresponded to the drain exhaust symbol C, D and J. Select according to the body thread type.

Note 3) Not corresponded to the drain exhaust symbol C and D.
Select no symbol when the body thread symbol is F.

Applicable Model

Bowl assembly model	Applicable model
AM-CA150C	AFF2C, AM150C, AMD150C, AMH150C, AMG150C
AM-CA250C	AFF4C, AM250C, AMD250C, AMH250C, AMG250C
AM-CA350C	AFF8C, AM350C, AMD350C, AMH350C, AMG350C
AM-CA450C	AFF11C, AM450C, AMD450C, AMH450C, AMG450C
AM-CA550C	AFF22C, AM550C, AMD550C, AMH550C, AMG550C

Auto Drain Specifications/Option Combinations

○ : Available □ : Not available

△ : Plural options cannot be selected.

(i.e. Combinations such as C-FV, D-FHV are not possible.)

Symbol	F	H	V
A	○	○	○
C	△	△	△
D	△	△	△
J	○	○	○

■ AFF37B/75B

AFF - CA 37B - □ - □

Body size

37B
75B

Thread type ^{Note 3)}

Symbol	Type
Nil ^{Note 4)}	Rc, G
N	NPT

Note 3) Corresponded to the drain exhaust symbol D and J. Select according to the body thread type.

Note 4) Select no symbol when the body thread symbol is F.

Drain exhaust

Symbol	Description
A	With drain cock ^{Note 1)}
D	With N.O. auto drain
J	With drain guide ^{Note 2)}

Note 1) Body size 75B is equipped with a ball valve (Rc 3/8 female threaded). Mount a piping adapter IDF-AP609 (page 245) to the ball valve if NPT 3/8 female threaded is required.

Note 2) Drain piping and piping for a stop valve such as a ball valve are required. For body size 75B, substitute with a ball valve. (symbol: A)

How to Order Bowl Assembly

■ Series AM, AMD, AMH, AMG

AM - CA 650 - □ - □

**AMD
AMH
AMG**

Body size

650
850

Thread type ^{Note 3)}

Symbol	Type
Nil ^{Note 4)}	Rc, G
N	NPT

Note 3) Corresponded to the drain exhaust symbol D and J. Select according to the body thread type.

Note 4) Select no symbol when the body thread symbol is F.

Drain exhaust

Symbol	Description
A	With drain cock ^{Note 1)}
D	With N.O. auto drain
J	With drain guide ^{Note 2)}

Note 1) Body size 850 is equipped with a ball valve (Rc 3/8 female threaded). Mount a piping adapter IDF-AP609 (page 245) to the ball valve if NPT 3/8 female threaded is required.

Note 2) Drain piping and piping for a stop valve such as a ball valve are required.
For body size 850, substitute with a ball valve. (symbol: A)

■ AME, AMF150C to 550C

AME - CA □ - A - □

Body size

150C
250C
350C
450C
550C

Option ^{Note)}

Symbol	Description
Nil	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
V	Degreasing wash, white vaseline

Note) Combination of F and H is not available.

Applicable Model

Bowl assembly model	Applicable model
AME-CA150C	AME150C, AMF150C
AME-CA250C	AME250C, AMF250C
AME-CA350C	AME350C, AMF350C
AME-CA450C	AME450C, AMF450C
AME-CA550C	AME550C, AMF550C

■ AME, AMF650/850

AME - CA 650 - A

AMF

Body size

650
850

HAA
HAW

AT

IDF
IDU

IDFA

IDFB

IDH

ID

IDG

IDK

AMG

AMF

AM

AMD

AMH

AME

AMF

ZFC

SF

SFD

LLB

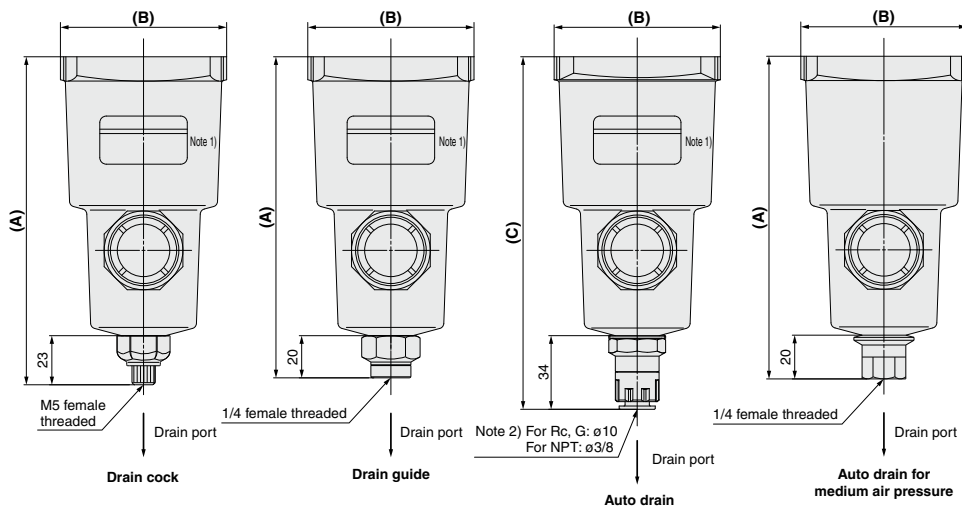
AD□

GD

AFF-CA□/AM□-CA□

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

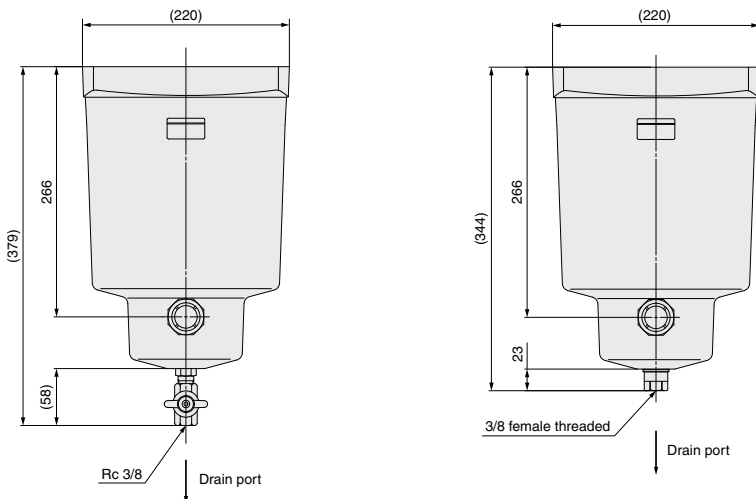
Size: AFF2C to 22C, AFF37B, AM□150C to 550C, AM□650



		(mm)		
Series AFF	Series AM, AMD, AMG, AMH	A	B	C
Size	Size			
2C	150C	137	63	148
4C	250C	142	76	153
8C	350C	165	90	176
11C	450C	181	106	192
22C	550C	205	122	216
37B	650	248	160	259

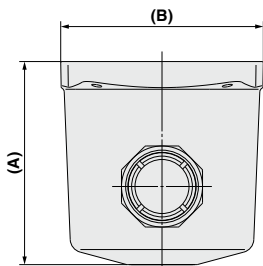
Note 1) Model no. labels are not affixed to the AM-CA150C to 550C.
Note 2) Select according to the body thread type.
Applicable tubing size for One-touch fitting
Rc, G: $\phi 10$
NPT: $\phi 3/8$ inch

Size: AFF75B, AM□850



Dimensions: Series AME, AMF

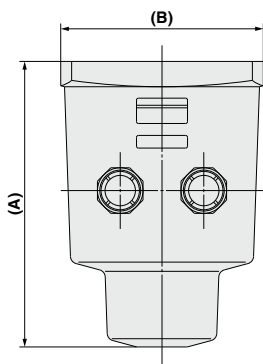
■ AME150C to 550C, AMF150C to 550C



(mm)

Series AME, AMF Size	A	B
150	60	63
250	70	76
350	90	90
450	104	106
550	130	122

■ AME650/850, AMF650/850



(mm)

Series AME, AMF Size	A	B
650	225	160
850	319	120

HAA
HAW
AT
IDF
IDU
IDFA
IDFB
IDH
ID
IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD□
GD

Compressed Air Cleaning Filter Series

Made to Order/Special Specifications



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

Made to Order

Contents	Symbol	Applicable model							Reference page
		AFF	AM	AMD	AME	AMF	AMG	AMH	
1. With Differential Pressure Gauge (GD40-2-01)	X6	●	●	●	—	—	—	●	P.251
2. With Differential Pressure Switch (With Indicator)	X37	●	●	●	—	—	—	●	
3. With IN-OUT Flange	X15	●	●	●	—	—	●	●	P.252
4. With Pressure Differential Gauge (GD40-2-01), IN-OUT Flange	X17	●	●	●	—	—	—	●	
5. N.C., N.O. Auto Drain, Drain Piping Type	X26	●	●	●	—	—	●	●	P.253
6. White Vaseline Specifications	X12	●	●	●	●	●	●	●	
7. Mist Separator for High Flow Rate (0.3 μm)	X13	●	—	—	—	—	—	—	P.254

Special Specifications

Contents	Applicable model							Reference page
	AFF	AM	AMD	AME	AMF	AMG	AMH	
Clean Series (10-Series)	●	●	●	●	●	—	●	P.255
Copper-free*, Fluorine-free (20-Series)	●	●	—	—	—	●	—	

* The exposed exterior is copper free.

Compressed Air Cleaning Filter Series

Made to Order Specifications 1



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

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

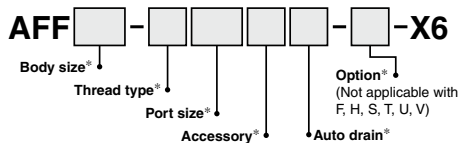
A differential pressure gauge that keeps track of the filter life is installed on the filter itself. This facilitates piping and achieves a compact design.

Specifications

Applicable model	AFF2C to 22C, 37B, 75B
------------------	------------------------

How to Order

* Refer to "How to Order" for standard specifications.

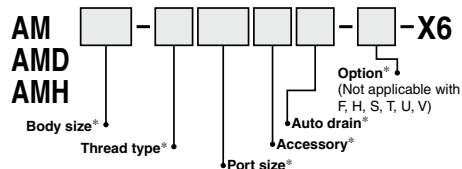


Specifications

Applicable model	AM150C to 550C, 650, 850, AMD150C to 550C, 650, 850, AMH150C to 550C, 650, 850
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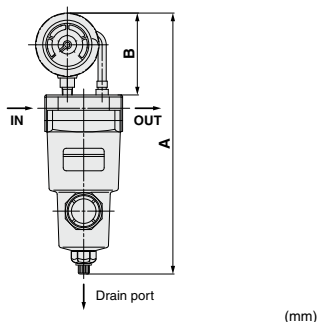
How to Order

* Refer to "How to Order" for standard specifications.



- Note) • The AMG series is not applicable since water drops could ingress inside its differential pressure gauge, resulting in malfunction or damage to the product.
 • Cannot be mounted to the AME and AMF series. (It affects the cleanliness at the outlet.)

Dimensions



Series AFF Size	Series AM, AMD, AMH Size	Port size	A	B
2C	150C	1/8, 1/4	242	80
4C	250C	1/4, 3/8	255	80
8C	350C	3/8, 1/2	287	80
11C	450C	1/2, 3/4	308	80
22C	550C	3/4, 1	342	80
37B	650	1, 1 1/2	394	80
75B	850	1 1/2, 2	541	80

2. With Differential Pressure Switch (With indicator) (125 VAC, 30 VDC)

Allows visual confirmation of differential pressure which indicates the element life. The built-in contact enables remote control.

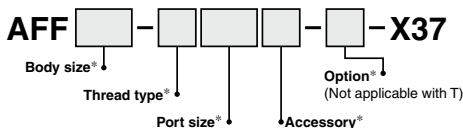
* Place an order separately if conformity to the EU directive is required.

Specifications

Applicable model	AFF37B, 75B
------------------	-------------

How to Order

* Refer to "How to Order" for standard specifications.

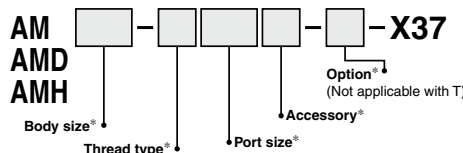


Specifications

Applicable model	AM650, 850, AMD650, 850, AMH650, 850
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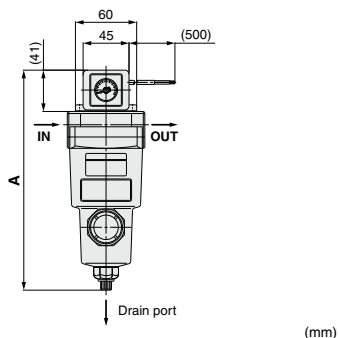
How to Order

* Refer to "How to Order" for standard specifications.



- Note) • The AMG series is not applicable since water drops could ingress inside its differential pressure gauge, resulting in malfunction or damage to the product.
 • Cannot be mounted to the AME and AMF series. (It affects the cleanliness at the outlet.)

Dimensions



Series AFF Size	Series AM, AMD, AMH Size	Port size	A
37B	650	1, 1 1/2	355
75B	850	1 1/2, 2	501

HAA
HAW

AT

IDF
IDU

IDFA

IDFB

IDH

ID

IDG

IDK

IDK

AMG

AFF

AM

AMD

AMH

AME

AMF

ZFC

SF

SFD

LLB

AD

GD

Compressed Air Cleaning Filter Series

Made to Order Specifications 2



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

3. With IN-OUT Flange

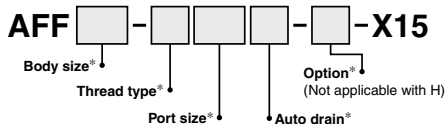
Makes flange piping easier when filter ports on IN and OUT are flange connection. (Flange material: Carbon steel)

Specifications

Applicable model	AFF11C, 22C, 37B, 75B
------------------	-----------------------

How to Order

* Refer to "How to Order" for standard specifications.

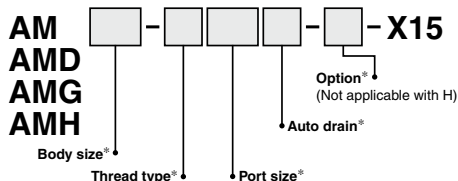


Specifications

Applicable model	AM450C, 550C, 650, 850, AMD450C, 550C, 650, 850, AMH450C, 550C, 650, 850, AMG450C, 550C, 650, 850
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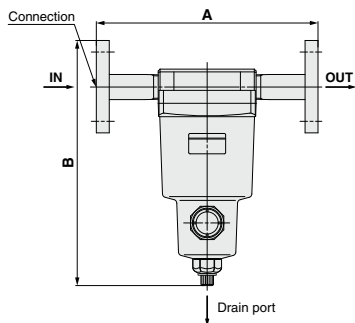
How to Order

* Refer to "How to Order" for standard specifications.



Note) • Cannot be mounted to the AME and AMF series. (It affects the cleanliness at the outlet.)

Dimensions



Series AFF	Series AM, AMD, AMG, AMH	Connection	(mm)		
Size	Size	JIS 10K FF flange	A	B	
11C	450C	15 (1/2B)	242 ± 3	256	
		20 (3/4B)	239 ± 3	258	
22C	550C	20 (3/4B)	255 ± 3	288	
		25 (1B)	259 ± 4	301	
37B	650	25 (1B)	297 ± 4	345	
		40 (1 1/2B)	324 ± 4	352	
		40 (1 1/2B)	384 ± 4	489	
75B	850	50 (2B)	378 ± 4	497	

4. With Differential Pressure Gauge (GD40-2-01), IN-OUT Flange

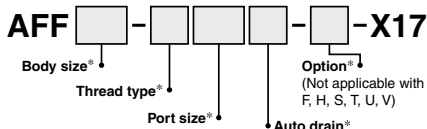
The differential pressure gauge is mounted on the main body to monitor the life of a filter by checking its clogging status. Ports on IN and OUT are flange connection type. (Flange material: Carbon steel)

Specifications

Applicable model	AFF11C, 22C, 37B, 75B
------------------	-----------------------

How to Order

* Refer to "How to Order" for standard specifications.

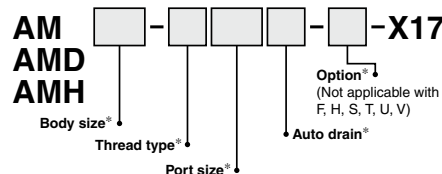


Specifications

Applicable model	AM450C, 550C, 650, 850, AMD450C, 550C, 650, 850, AMH450C, 550C, 650, 850
------------------	--

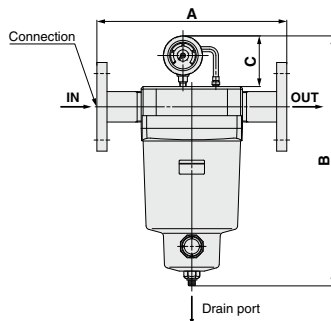
How to Order

* Refer to "How to Order" for standard specifications.



Note) • The AMG series is not applicable since water drops could ingress inside its differential pressure gauge, resulting in malfunction or damage to the product.
• Cannot be mounted to the AME and AMF series. (It affects the cleanliness at the outlet.)

Dimensions



Series AFF	Series AM, AMD, AMG, AMH	Connection	(mm)			
Size	Size	JIS 10K FF flange	A	B	C	
11C	450C	15 (1/2B)	242 ± 3	258	308	
		20 (3/4B)	239 ± 3	258	308	
22C	550C	20 (3/4B)	255 ± 3	288	342	
		25 (1B)	259 ± 4	301	342	
37B	650	25 (1B)	297 ± 4	345	394	
		40 (1 1/2B)	324 ± 4	352	394	
		40 (1 1/2B)	384 ± 4	489	394	
75B	850	50 (2B)	378 ± 4	497	541	

Compressed Air Cleaning Filter Series

Made to Order Specifications 3



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

5. N.C., N.O. Auto Drain, Drain Piping Type

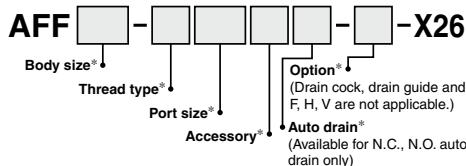
Drain piping type (drain guide specification) to the drain exhaust from N.C. auto drain and N.O. auto drain. N.C. type is not available for the AFF37B and AM□650.

Specifications

Applicable model	AFF2C to 22C, 37B
------------------	-------------------

How to Order

* Refer to "How to Order" for standard specifications.

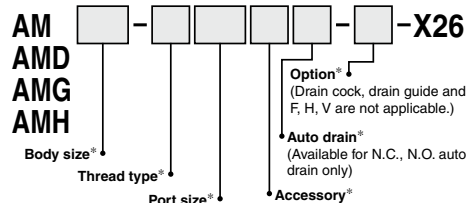


Specifications

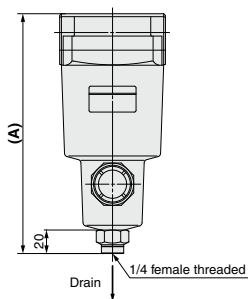
Applicable model	AM□150 to 650
------------------	---------------

How to Order

* Refer to "How to Order" for standard specifications.



Dimensions



(mm)

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

6. White Vaseline Specifications

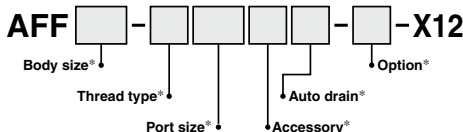
Changed the grease for O-rings and gaskets as lubricant to white vaseline.

Specifications

Applicable model	AFF37B, 75B
------------------	-------------

How to Order

* Refer to "How to Order" for standard specifications.

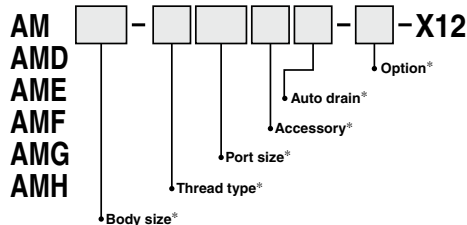


Specifications

Applicable model	AM650, 850, AMD650, 850, AME650, 850, AMF650, 850, AMG650, 850, AMH650, 850
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How to Order

* Refer to "How to Order" for standard specifications.



HAA
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IDFA
IDFB
IDH
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IDG
IDK
AMG
AFF
AM
AMD
AMH
AME
AMF
ZFC
SF
SFD
LLB
AD□
GD

Compressed Air Cleaning Filter Series

Made to Order Specifications 4



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

7. Mist Separator for High Flow Rate (0.3 μm)

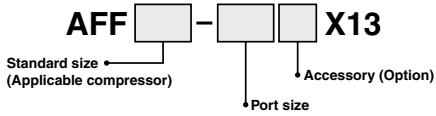
Use this product when the conventional mist separator (Series AM) cannot dispose of a high flow rate. The specifications other than the nominal filtration rating are all equivalent to that of the AFF75A to 220A.

Specifications

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

How to Order

* Refer to "How to Order" for standard specifications.



Compressed Air Cleaning Filter Series

Special Specifications

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

Clean Series (10-Series)

Clean Series products are 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	AFF2C to 22C, 37B, 75B
------------------	------------------------

* Refer to "How to Order" for standard specifications.

How to Order

10-AFF □ - □ - □ - □ - **J** □

Body size* Thread type* Port size* With drain guide (Note 1) Option (Note 2)

Symbol	Description
Nil	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
R	IN-OUT reversal direction
T	With element service indicator

Accessory (Note)

Symbol	Description
Nil	—
B	Bracket

Note 1) "10-" is not applicable to standard product (with drain cock) and with auto drain.

Note 2) Combination of F and T is not available.
F and H are only applicable to the AFF2C to 22C.

Specifications

Applicable model	AM150C to 550C, 650, 850, AMD150C to 550C, 650, 850, AMH150C to 550C, 650, 850
------------------	--

10-AM □ - □ - □ - □ - **J** □

AMD □ - □ - □ - □ - **J** □

AMH □ - □ - □ - □ - **J** □

Body size* Thread type* Port size* With drain guide (Note 1) Option (Note 2)

Symbol	Description
Nil	—
F	Rubber material: FKM
H	For medium air pressure (1.6 MPa)
R	IN-OUT reversal direction
T	With element service indicator

Accessory (Note)

Symbol	Description
Nil	—
B	Bracket

Note 1) "10-" is not applicable to standard product (with drain cock) and with auto drain.

Note 2) Combination of F and T is not available.
F and H are only applicable to the AM□150C to 550C.

Specifications

Applicable model	AME150C to 550C, 650, 850, AMF150C to 550C, 650, 850
------------------	--

10-AME □ - □ - □ - □ - □

AMF □ - □ - □ - □ - □

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

Symbol	Description
Nil	—
B	Bracket

Symbol	Description
Nil	—
R	IN-OUT reversal direction

Note) F and H are only applicable to the AME, AMF150C to 550C.

Copper-free, Fluorine-free (20-Series)

To eliminate effects etc. by copper ion or fluorine resin, copper materials are electrodeless-nickel plated or changed to copper-free materials to prevent the generation of copper ions.
(It is not applicable to the AMD, AME, AMF and AMH series because those include fluorine resin in the filter material of the element.)

Specifications

Applicable model	AFF2C to 22C, 37B
------------------	-------------------

* Refer to "How to Order" for standard specifications.

How to Order

20-AFF □ - □ - □ - □ - **C** □

D □

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

Symbol	Description
Nil	—
R	IN-OUT reversal direction
T	With element service indicator

Accessory

Symbol	Description
Nil	—
B	Bracket

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

Specifications

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

20-AFF75B - □ - □ - □ - □

Thread type* Port size* Option

Symbol	Description
Nil	—
R	IN-OUT reversal direction
B	Bracket
D	N.O. auto drain

Symbol	Description
Nil	—
R	IN-OUT reversal direction
T	With element service indicator

Specifications

Applicable model	AM150C to 550C, 650, AMG150C to 550C, 650
------------------	---

20-AM □ - □ - □ - □ - **C** □

AMG □ - □ - □ - □ - **D** □

Body size* Thread type* Port size* Option

Symbol	Description
Nil	—
R	IN-OUT reversal direction
B	Bracket
D	N.O. auto drain

Symbol	Description
Nil	—
R	IN-OUT reversal direction
T (Note 2)	With element service indicator

Note 1) "20-" is only applicable with N.C. auto drain (C) or N.O. auto drain (D).
Drain cock and drain guide are copper-free, fluorine-free as standard.

Note 2) R is only available for AMG.

Specifications

Applicable model	AM850, AMG850
------------------	---------------

20-AM 850 - □ - □ - □ - □

AMG - □ - □ - □ - □

Thread type* Port size* Option

Symbol	Description
Nil	—
R	IN-OUT reversal direction
T (Note)	With element service indicator

Accessory

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

Note) R is only available for AMG.

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ZFC
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LLB
AD□
GD



Series AM□/AFF

Specific Product Precautions 1

Be sure to read before handling.

Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

Design

⚠ Caution

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

The element could be damaged if a difference between the inlet pressure and the outlet pressure 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 the AM□ series, dust particles may come off from outlet equipment, which will lower the cleanliness of compressed air. 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.

When using the AFF2C to 22C, 37B, 75B, AM□150C to 550C, 650, 850 with normally open (N.O.) auto drain, air may ceaselessly blow out of the drain discharge area when an air compressor with a small air discharge volume is used since the valve does not close unless the air pressure is 0.1 MPa or higher.

4. Use a tubing with proper size and length for drain piping of auto drain.

When using the AFF2C to 22C, 37B, AM□150C to 550C, 650 with auto drain:

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

When using the AFF75B and AM□850 with auto drain:

Normally open (N.O.): Use tubing I.D. 9 mm or more and keep the whole 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. 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 in 2 to 4 weeks later after the shipment of the product.

Main Line Filter AFF220A

Micro Mist Separator..... AMD9□/10□

⚠ Warning

1. Hold the female thread side and tighten to the recommended torque when screwing in the piping material.

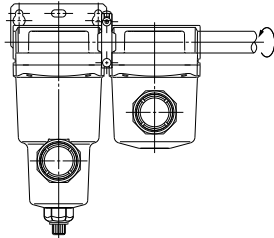
Insufficient tightening torque may cause loosening or defective sealing. Over-tightening torque may damage the thread etc. If it is tightened without holding the female thread side, excessive force will be directly applied to the piping bracket resulting in a product failure.

Recommended Torque

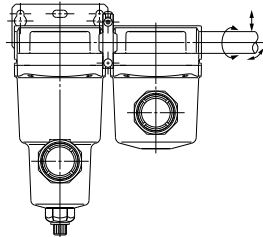
Unit: N·m

Connection thread	1/8	1/4	3/8	1/2	3/4	1	1 1/2	2
Torque	7 to 9	12 to 14	22 to 24	28 to 30	28 to 30	36 to 38	48 to 50	48 to 50

* After tightening manually, tighten additionally by about 1/6 turn with a tightening tool.



2. Do not apply torsional moment or bending moment (except the product's own weight) to the bracket. It may damage the bracket. Support external piping separately.



3. Inflexible piping such as steel piping tends to be affected by spread of excessive moment load or vibration from the piping side. Lay flexible tubing between the steel pipe and the product to prevent such effects.



Series AM□/AFF

Specific Product Precautions 2

Be sure to read before handling.

Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

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. Determine the system configuration according to the desired cleanliness of compressed air and application, while referring to the "Air Preparation Equipment Selection Guide" (pages 2 and 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 capacity.

When compressed air is used for air blow, etc., find the maximum air consumption before selecting the size of the AM□ series. (If compressed air exceeding the maximum flow rate is supplied, it can result in decline of the cleanliness of compressed air or discharge of oil mist to outlet side.)

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 drain separated by the element will splash to the outlet side.

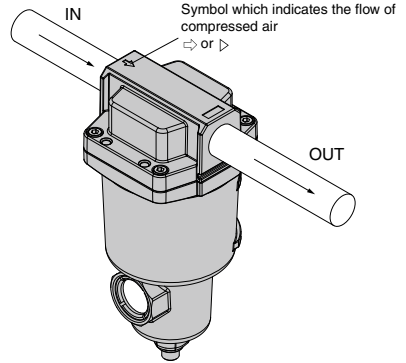
Piping

⚠ Caution

1. Connect it with IN and OUT ports in proper location. It does not work with the connection reversed.

In the case of the AFF2C to 22C, 37B, 75B, AM□150C to 550C, 650, 850

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



In the case of the AFF75A to 220A, AMD800, 900, 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 sealant tape

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

4. Modular connection

Mount the attached bracket on one side when connecting 2 sets. Mount the attached brackets on both sides when connecting 3 sets or more. As a guideline for the number of brackets, one bracket should be mounted for every 2 products.

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ZFC
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LLB
AD□
GD



Series AM□/AFF

Specific Product Precautions 3

Be sure to read before handling.

Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

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.

If the mist separator is used under a low pressure such as for a blower, conduct sufficient tests by users to confirm the specifications and performances.

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 where these elements are likely to adhere to the equipment.
- 2) In locations where 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. If the element is continually used without replacement, there is a possibility of damage to the element.**

To replace the element, replace the O-ring and the gasket, too. For the replacement procedure, refer to the operating manual. (For element dimensions, refer to page 259.)

<Element replacement>

- a. In the case of the AFF2C to 22C, 37B, 75B, AM□150C to 550C, 650, 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 element service indicator (-T) or with differential pressure gauge (Made to Order).

- b. In the case of the AFF75A to 220A, AMD800 to 1000

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

- c. In the case of the AME

Regardless of the time for its replacement indicated in "a" above, replace the element when a red color spot occurred on the surface.

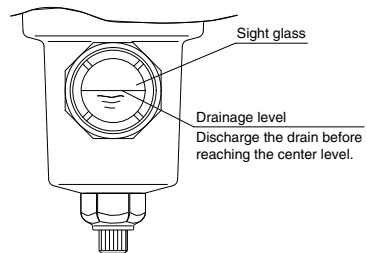
- d. In the case of the AMF

Regardless of the time for its replacement indicated in "a" or "b", replace the element when you smell oil on the outlet side.

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

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

When using the AFF2C to 22C, 37B, 75B, AM□150C to 550C, 650, 850 with drain cock, drain guide or ball valve, discharge the drain before the drainage level reaches the center of the sight glass. If the drain is not discharged properly, it will flow over to the outlet side.





Series AM□/AFF

Specific Product Precautions 4

Be sure to read before handling.

Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

Maintenance

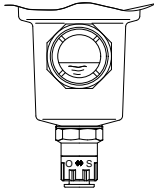
⚠ Caution

3. In the case of a type with auto drain

- The auto drain operates when the drainage level reaches the top of the sight glass, and the drain will be discharged.
- When using the AFF2C to 22C, 37B, AM□150C to 550C, 650 with auto drain, 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 drain 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.)



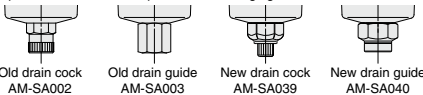
Open Close

4. The drain exhaust parts replacement method and necessary parts are different depending on when it was manufactured.

Description	Necessary parts		Applicable size
	Manufactured Jan. 2010 or before (Manufacturing lot No. up to oo)	Manufactured Feb. 2010 onwards (Manufacturing lot No. oP to onwards) ^{Note 2)}	
Drain cock	AM-SA002	AM-SA039	
Drain guide	Thread type Rc: AM-SA003 Thread type G: AM-SA003-F Thread type NPT: AM-SA003-N	Thread type Rc: AM-SA040 Thread type G: AM-SA040-F Thread type NPT: AM-SA040-N	2C to 22C 150C to 550C 650
N.O. auto drain	Thread type Rc, G: AD43PA-D Thread type NPT: NAD43PA-D		
N.C. auto drain	Thread type Rc, G: AD53PA-D Thread type NPT: NAD53PA-D		2C to 22C 150C to 550C
Ball valve set	AM-SA004		
N.O. auto drain ^{Note 1)}	Thread type Rc: AD34PA-D Thread type G: EAD34PA-D Thread type NPT: NAD34PA-D		75B, 850

Note 1) Jig (AM-SA005) for replacing auto drain is necessary for the 75B or 850.

Note 2) When replacing parts with a production lot no. oP or after, order the parts with the same shape as the following figures.



Old drain cock
AM-SA002

Old drain guide
AM-SA003

New drain cock
AM-SA039

New drain guide
AM-SA040

5. The drain exhaust parts are different according to option or thread.

Applicable models: AFF2C to 22C, AM, AMD, AMH, AMG150C to 550C

Drain exhaust specifications	Option	Thread type		
		Rc	G	NPT
Drain cock	Except F, V	AM-SA039		
	F	AM-SA039-1		
	V	AM-SA039-2		
Drain guide	FV	AM-SA039-3		
	Except F, V	AM-SA040	AM-SA040-F	AM-SA040-N
	F	AM-SA040-1	AM-SA040-F-1	AM-SA040-N-1
N.C. auto drain	V	AM-SA040-2	AM-SA040-F-2	AM-SA040-N-2
	FV	AM-SA040-3	AM-SA040-F-3	AM-SA040-N-3
	Except F, V	AD53PA-D	NAD53PA-D	
N.O. auto drain	F	AD53PA-D-X155	NAD53PA-D-X155	
	V	AD53PA-D-X113	NAD53PA-D-X113	
N.O. auto drain	Except F, H, V	AD43PA-D	NAD43PA-D	
	F	AD43PA-D-X155	NAD43PA-D-X155	
	V	AD43PA-D-X113	NAD43PA-D-X113	
	H	AD33PA-D-X2004	EAD33PA-D-X2004	NAD33PA-D-X2004

Others

⚠ Caution

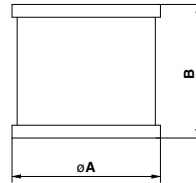
1. Element interchange

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

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, replace the product model number label, too.



Element Dimensions

Model	Element dimensions (Reference value)	
	φA	B
AFF2C, AM□150C	49	42
AFF4C, AM□250C	58	52
AFF8C, AM□350C	70	78
AFF11C, AM□450C	82	88
AFF22C, AM□550C	96	118
AFF37B, AM□650	122	144
AFF75B, AM□850	142	223

HAA
HAW

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IDF
IDU

IDFA

IDFB

IDH

ID

IDG

IDK

AMG

AFF

AM

AMD

AMH

AME

AMF

ZFC

SF

SFD

LLB

AD□

GD



Series AM□/AFF

Specific Product Precautions 5

Be sure to read before handling.

Refer to front matter 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

Others

Caution

2. About oil-free products

The AFF and AM□ series includes parts (such as resin parts, rubber parts, and elements) that does not allow degreasing wash. Therefore, oil-free products with all parts degreasing washed is not available.

3. Degreasing wash

Certain parts such as the body and housing can be degreasing washed. Contact SMC after confirming the specifications. (available as Option or Made to Order)

4. Change of oil

On the AFF and AM□ series, 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 applied oil (as Option or 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 the AFF and AM□ series (when the element is removed).

Volume Inside Filter

Model	Volume inside filter (Reference value) (cm ³)
AFF2C, AM150C, AMD150C AMG150C, AMH150C	250
AFF4C, AM□250C, AMD250C AMG250C, AMH250C	350
AFF8C, AM□350C, AMD350C AMG350C, AMH350C	600
AFF11C, AM□450C, AMD450C AMG450C, AMH450C	1000
AFF22C, AM□550C, AMD550C AMG550C, AMH550C	1500
AFF37B, AM□650, AMD650 AMG650, AMH650	3000
AFF75B, AM□850, AMD850 AMG850, AMH850	9000