

# 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  $\mu\text{m}$ .

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.

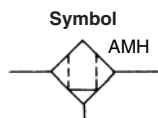
Modular connection is possible with AMH150C to 550C.  
(For details, refer to page 61.)



AMH150C to 550C



AMH650/850



**Made to Order**  
(For details, refer to page 67.)

## Model

Model	AMH150C	AMH250C	AMH350C	AMH450C	AMH550C	AMH650	AMH850
Rated flow (Note) ( $\ell/\text{min}$ (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
Mass (kg)	0.38	0.55	0.9	1.4	2.1	4.2	10.5



Note) Max. flow at 0.7 MPa.

Max. flow varies depending on the operating pressure.

Refer to "Flow Characteristics" (page 39) and "Maximum Air Flow" below.

## 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
Nominal filtration density	0.01 $\mu\text{m}$ (Filtration efficiency: 99.9%)
Oil mist density at outlet	Max. 0.1 $\text{mg}/\text{m}^3$ (ANR)* (Before saturated with oil, less than 0.01 $\text{mg}/\text{m}^3$ (ANR) $\approx$ 0.008 ppm)
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)

\* Oil mist density at 30  $\text{mg}/\text{m}^3$  (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

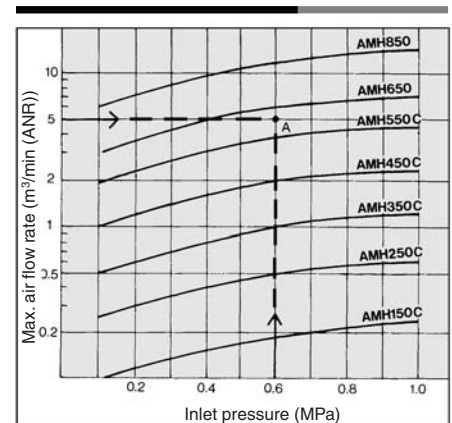
Select a model in accordance with the following procedure taking the inlet pressure and the max. air flow rate into consideration.  
(Example) Inlet pressure: 0.6 MPa  
Max. air flow rate: 5  $\text{m}^3/\text{min}$  (ANR)

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



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



## ⚠ Caution

Be sure to read this before handling.  
Refer to back pages 1 and 2 for Safety Instructions, "Precautions for Handling Pneumatic Devices" (M-03-E3A) for Common Precautions, and back pages 3 through to 7 for Specific Product Precautions.

## How to Order

### AMH150C to 550C



AMH **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

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

#### 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.68
X15	With IN-OUT flange	P.69
X17	With differential pressure gauge (GD40-2-01) and IN-OUT flange	P.69
X26	N.C., N.O. auto drain, drain piping type	P.70

#### Option \*3

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

\*4 Drain piping and piping for a stop valve such as ball valve are required.

\*5 Differential pressure switch is included, (but not assembled).

\*6 Only body/housing is degreasing washed.

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

### Auto Drain Specifications/Option Combinations

○ : Available □ : Not available

○, △ : Plural options cannot be selected.

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

Symbol	F	H	R	S	U	T	V
Auto drain specifications	○	○	○	○	○	○	○
Nil	○	○	○	○	○	○	○
C	△	△	○	○	○	○	△
D	○	△	○	○	○	○	○
J	○	○	○	○	○	○	○

#### Auto drain \*3

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

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

## Options

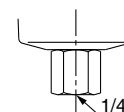
#### Symbol F: Rubber material: Fluororubber

Fluororubber 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



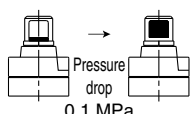
Can be piped to the drain exhaust port.

1/4 female threaded

#### Symbol R: IN-OUT reversal direction

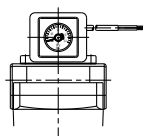
Air flow in the separator is changed to right to left.  
(Air flow direction of the standard: Left to right.)

#### Symbol T: With element service indicator



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

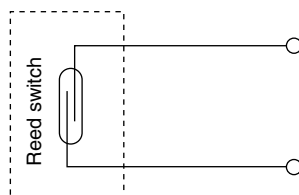
#### Symbol S: With differential pressure switch (with indicator)



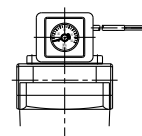
Saturation of the separator can be observed visually or by an electrical signal.  
(Element life check)

\* 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)



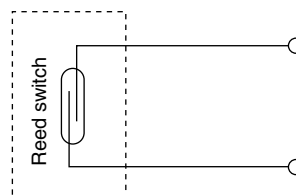
#### Symbol U: With differential pressure switch (with indicator)



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)

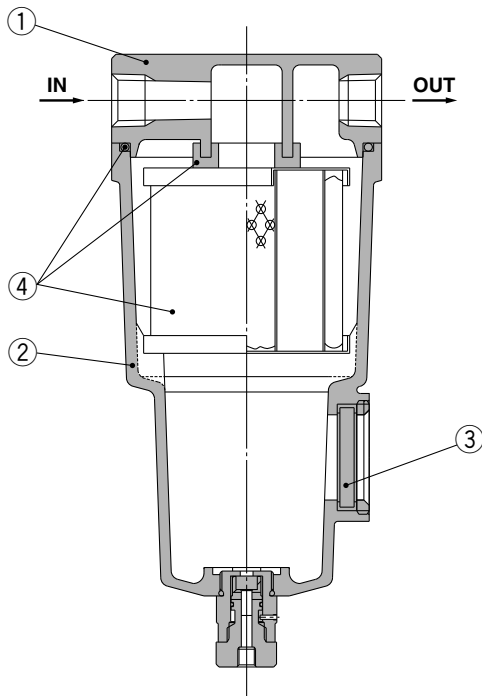


#### Symbol V: Degreasing wash, white vaseline

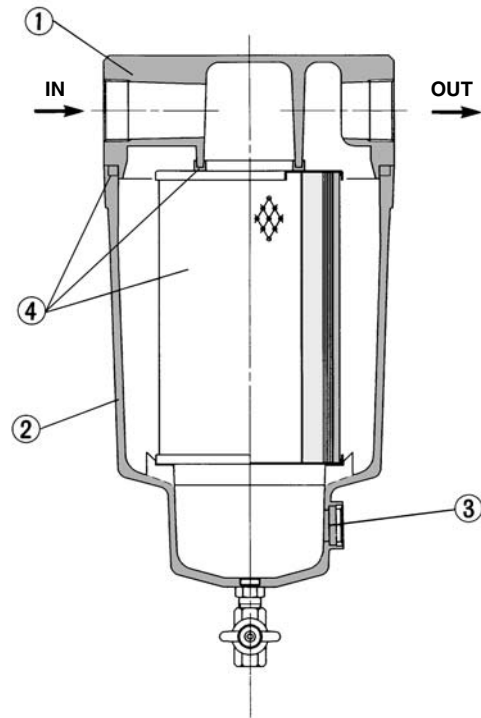
Body/housing is degreasing washed. The lubrication grease for O-ring and gasket is changed to white vaseline.

## Construction

### AMH150C to 550C, AMH650



### AMH850



## Component Parts

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

\* The AMH850 is aluminum casted.



Note) Refer to "How to Order Bowl Assembly" on page 63.



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 41 through to 43 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	AMH-EL150	AMH-EL250	AMH-EL350	AMH-EL450	AMH-EL550	AMH-EL650	AMH-EL850
			For option F	AMH-EL150-F	AMH-EL250-F	AMH-EL350-F	AMH-EL450-F	AMH-EL550-F	—	—

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

\* Refer to back page 6 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).