

# Super Mist Separator Series **AME**

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.

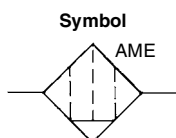
Modular connection is possible with AME150C to 550C.  
(For details, refer to page 204.)



AME150C to 350C AME450C/550C



AME650/850



**Made to Order**  
(For details, refer to page 210.)

## Model

| Model                                            | AME150C  | AME250C  | AME350C  | AME450C  | AME550C | AME650   | AME850   |
|--------------------------------------------------|----------|----------|----------|----------|---------|----------|----------|
| Rated flow (l/min (ANR))<br><small>Note)</small> | 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)                                        | 0.3      | 0.48     | 0.8      | 1.3      | 2.0     | 4.2      | 10.5     |



Note) Max. flow at 0.7 MPa.

Max. flow varies depending on the operating pressure.

Refer to "Flow Characteristics" and "Maximum Air Flow" (page 190).

## 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 rating     | 0.01 μm (Filtration efficiency: 99.9%)                                                                                                                                                                                                                                                                    |
| Cleanliness at outlet         | Less than 100 particles of 0.3 μm or larger per cubic foot<br>[Less than 35 particles per 10 liters (ANR)]                                                                                                                                                                                                |
| Oil mist density at outlet    | Max. 0.01 mg/m <sup>3</sup> (ANR)<br>(≈0.008 ppm)                                                                                                                                                                                                                                                         |
| Element life                  | 1. Element color indicator (Replace the element when a red color spot occurred on the surface.)<br>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<br>(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 matters 42 and 43 for Safety Instructions and pages 6 to 8 for Air Preparation Equipment Precautions.

## How to Order



### AME150C to 550C

AME 550C - [ ] 10 [ ] - [ ]

#### Body size

|      |
|------|
| 150C |
| 250C |
| 350C |
| 450C |
| 550C |

#### Thread type

| Symbol | Type            |
|--------|-----------------|
| Nil    | Rc              |
| F      | G* <sup>1</sup> |
| N      | NPT             |

\*1 Conforms to ISO1179-1.

#### Option

| Symbol | Description                                   |
|--------|-----------------------------------------------|
| Nil    | —                                             |
| F      | Rubber material: Fluororubber                 |
| H      | For medium air pressure (1.6 MPa)             |
| R      | IN-OUT reversal direction                     |
| V      | Degreasing wash,* <sup>3</sup> white vaseline |

\*3 Only body/housing is degreasing washed.

#### Accessory

| Symbol | Description            |
|--------|------------------------|
| Nil    | —                      |
| B      | Bracket * <sup>2</sup> |

\*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: 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 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

AME **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     | 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 |
|--------|-------------------------------|------------------|
| Nil    | —                             | —                |
| X12    | White vaseline specifications | P.213            |

#### 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 206.

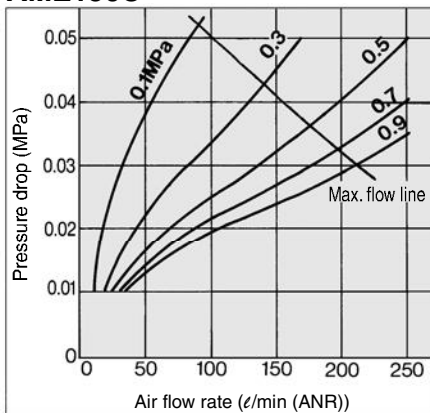
# Series AME

## Flow Characteristics (Representative values) (Element initial condition)

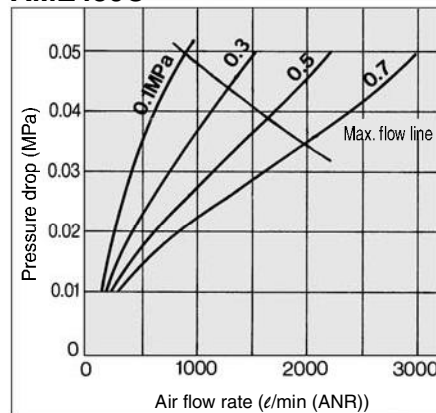


Note) Compressed air over max. flow line in the table below may not meet the specifications of the product.

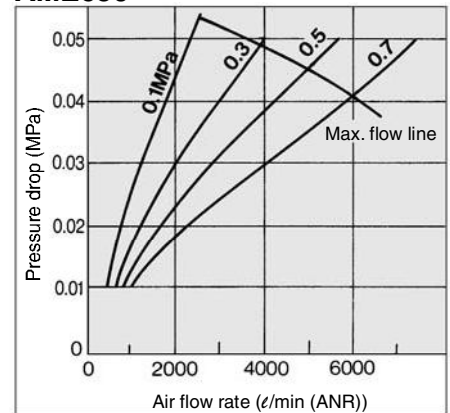
**AME150C**



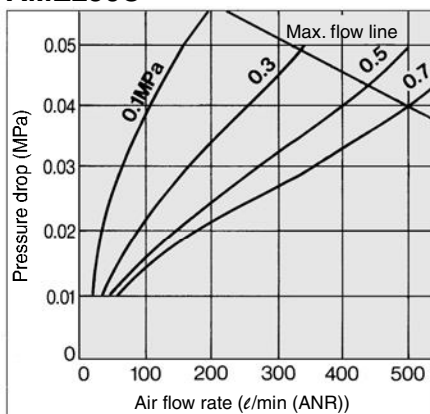
**AME450C**



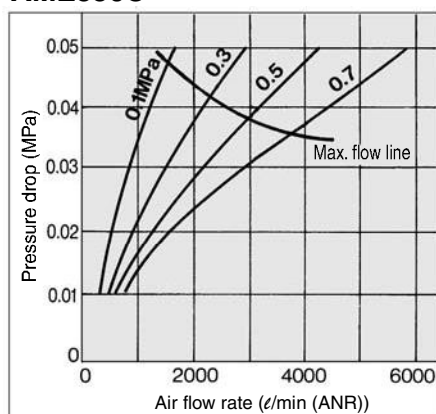
**AME650**



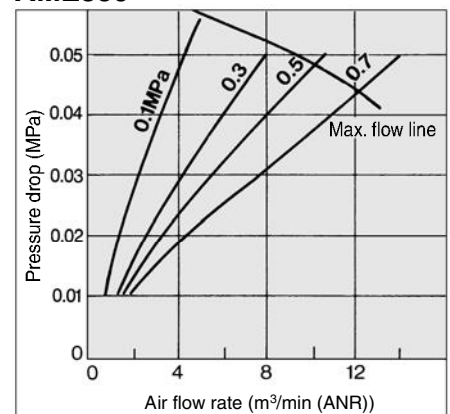
**AME250C**



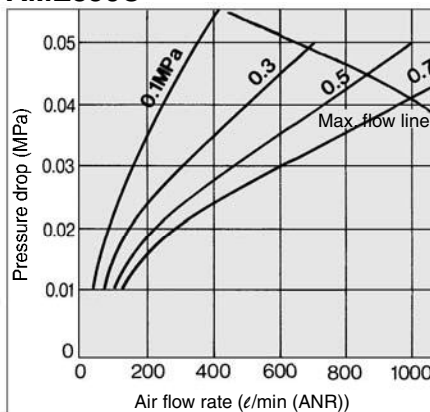
**AME550C**



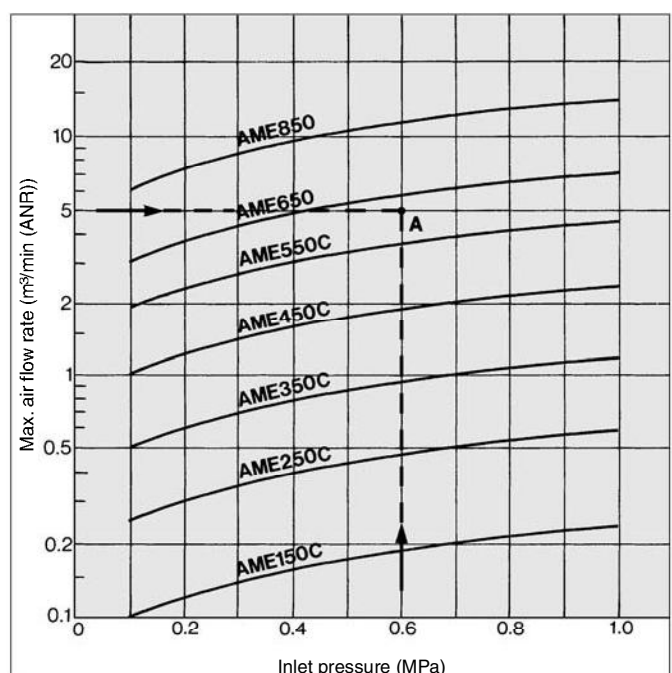
**AME850**



**AME350C**



## Maximum Air Flow



## 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 m³/min (ANR)

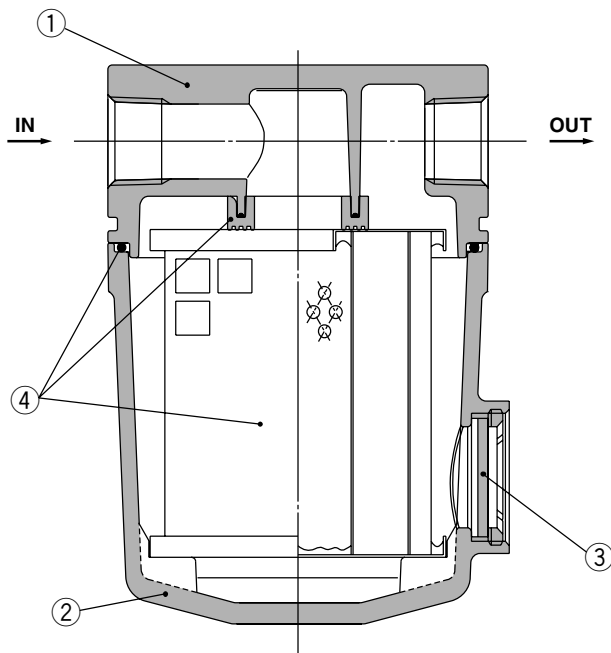
1. Obtain the intersecting point A of inlet pressure and max. air flow rate in the graph.
2. The AME650 is obtained when the max. flow line is above the intersecting point A in the graph.



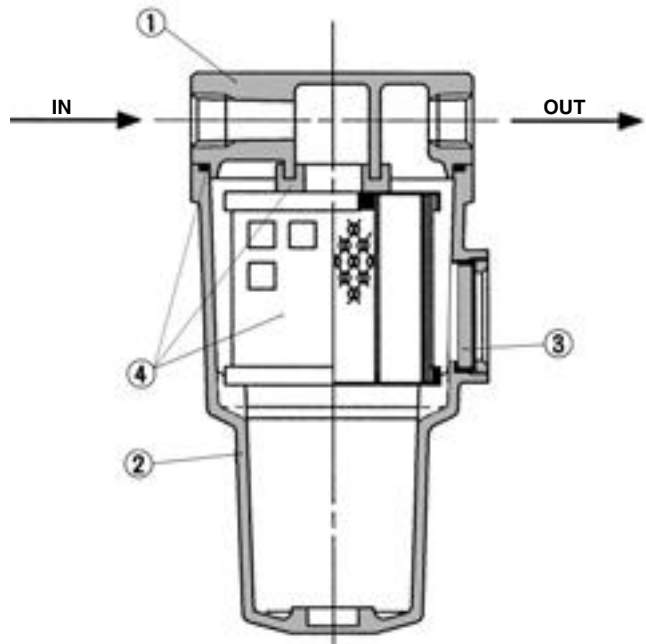
Note) Make sure to select a model that has the max. flow line above the obtained intersecting point. With a model that has the max. flow line below the obtained intersecting point, the flow rate will be exceeded, thus leading to a problem such as being unable to satisfy the specifications.

## Construction

### AME150C to 550C



### AME650/850



### 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 AME850 is aluminum casted.



Note) Refer to "How to Order Bowl Assembly" on page 206.



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 192 through to 194 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  | AME-EL150   | AME-EL250   | AME-EL350   | AME-EL450   | AME-EL550   | AME-EL650 | AME-EL850 |
|     |                  |                     | For option F     | AME-EL150-F | AME-EL250-F | AME-EL350-F | AME-EL450-F | AME-EL550-F | —         | —         |

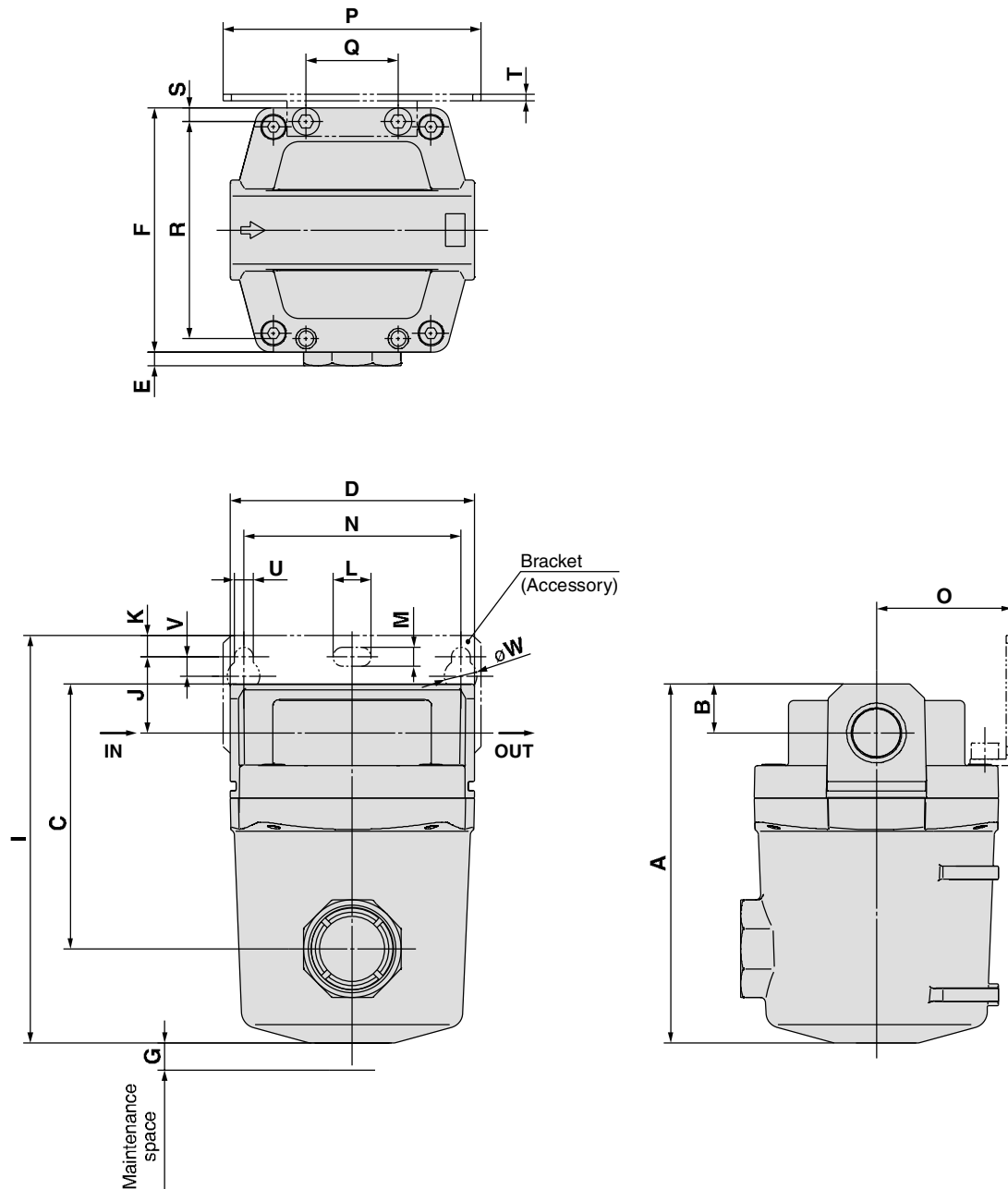
\* Element assembly: With gasket (1 pc.) and O-ring (1 pc.)

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

# Series AME

## Dimensions

### AME150C to 350C

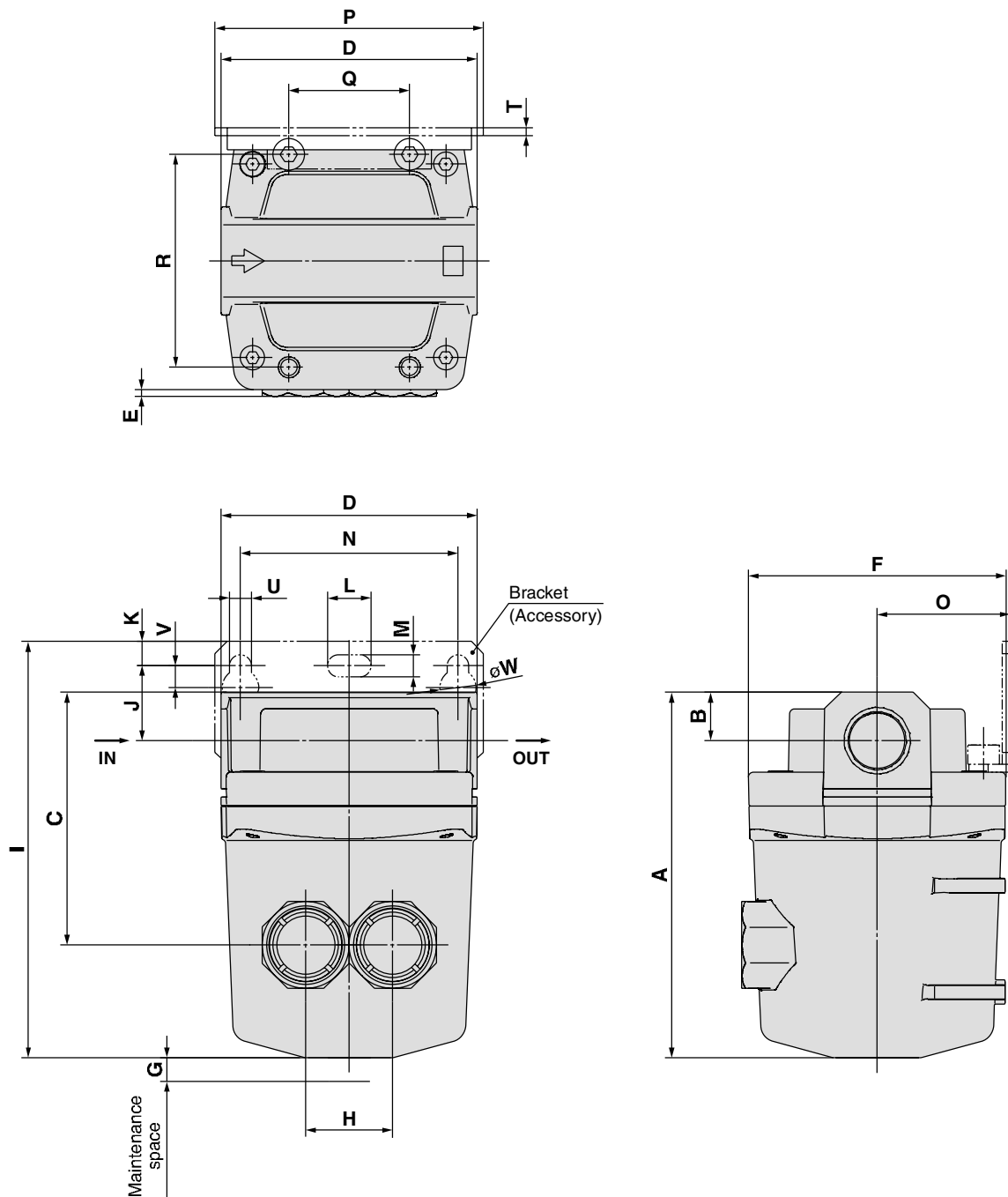


| Model   | Port size | A   | B  | C  | D  | E   | F  | G  | Bracket related dimensions |    |    |   |   |   |    |   |    |    |    |    |    |     |     |
|---------|-----------|-----|----|----|----|-----|----|----|----------------------------|----|----|---|---|---|----|---|----|----|----|----|----|-----|-----|
|         |           |     |    |    |    |     |    |    | 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 |

(mm)

## Dimensions

### AME450C/550C



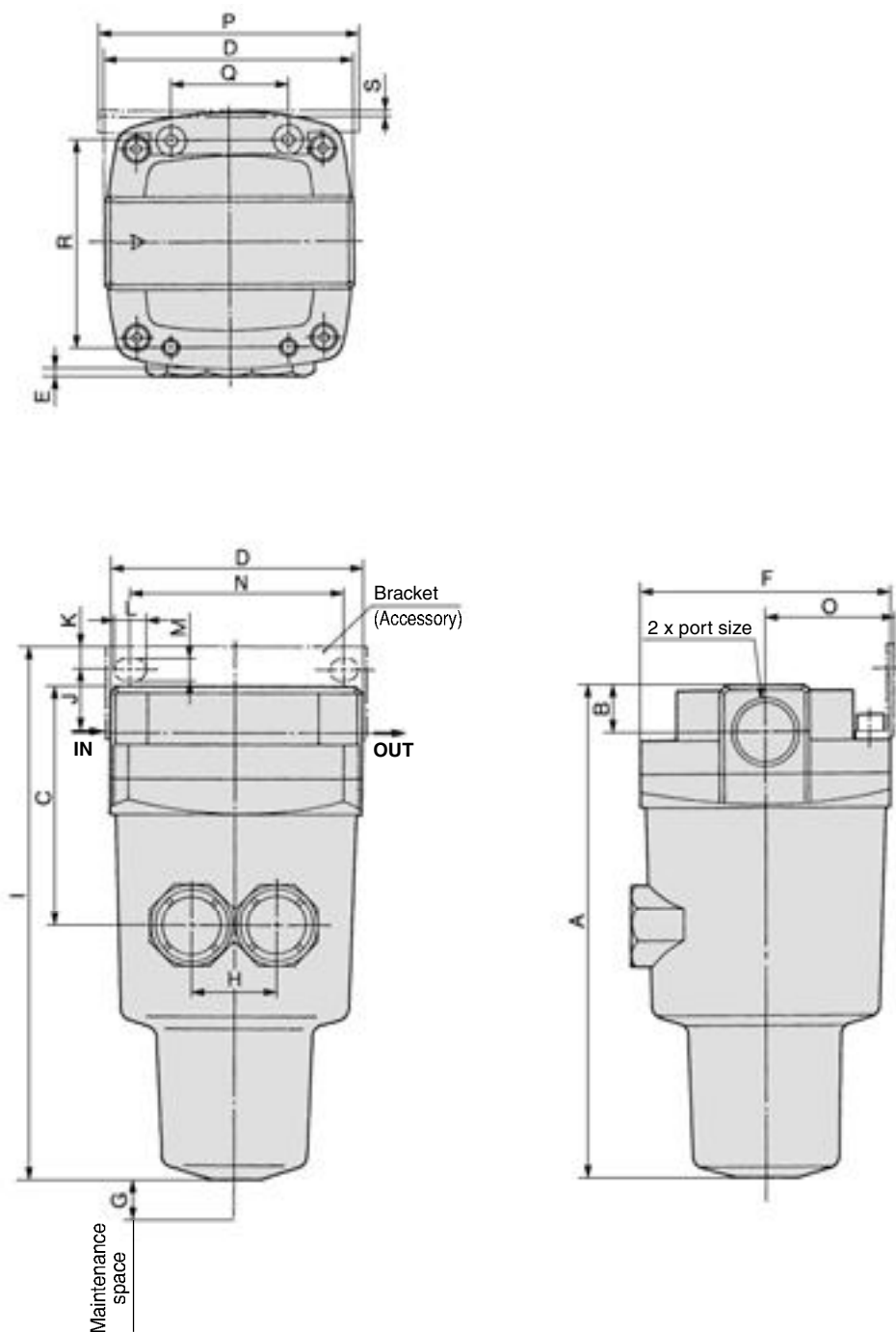
| (mm)    |           |     |    |     |     |   |     |    |    |                            |     |    |    |   |   |    |   |    |    |     |    |     |     |
|---------|-----------|-----|----|-----|-----|---|-----|----|----|----------------------------|-----|----|----|---|---|----|---|----|----|-----|----|-----|-----|
| 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 |

(mm)

# Series AME

## Dimensions

### AME650/850



| (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   |

(mm)