




# Modular Type Air Filter Series AF

| Air filter<br>Series AF  | Model    | Port size     | Filtration<br>( $\mu\text{m}$ ) | Accessory                        |
|--|----------|---------------|---------------------------------|----------------------------------|
|  <p>Pages 23 through 27</p>   | AF10     | M5 x 0.8      | 5                               | Bracket<br>Float type auto drain |
|  | AF20     | 1/8, 1/4      |                                 |                                  |
|  | AF30     | 1/4, 3/8      |                                 |                                  |
|  | AF40     | 1/4, 3/8, 1/2 |                                 |                                  |
|  | AF40-06  | 3/4           |                                 |                                  |
|  | AF50     | 3/4, 1        |                                 |                                  |
|  | AF60     | 1             |                                 |                                  |
|  <p>Pages 29 through 31</p>  | AFM20    | 1/8, 1/4      | 0.3                             | Bracket<br>Float type auto drain |
|  | AFM30    | 1/4, 3/8      |                                 |                                  |
|  | AFM40    | 1/4, 3/8, 1/2 |                                 |                                  |
|  | AFM40-06 | 3/4           |                                 |                                  |
|  <p>Pages 32 through 34</p> | AFD20    | 1/8, 1/4      | 0.01                            | Bracket<br>Float type auto drain |
|  | AFD30    | 1/4, 3/8      |                                 |                                  |
|  | AFD40    | 1/4, 3/8, 1/2 |                                 |                                  |
|  | AFD40-06 | 3/4           |                                 |                                  |

# Air Filter

# AF10 to 60

## How to Order

**AF 30 - F 03 BD - 2R**

**Body size**

|    |    |    |    |    |    |
|----|----|----|----|----|----|
| 10 | 20 | 30 | 40 | 50 | 60 |
|----|----|----|----|----|----|

**Thread type**

|           |                    |
|-----------|--------------------|
| Nil       | Metric thread (M5) |
| N Note 1) | Rc                 |
| F Note 2) | NPT                |
|           | G                  |

**Port size**

| Symbol | Port size | Body size |    |    |    |    |    |
|--------|-----------|-----------|----|----|----|----|----|
|        |           | 10        | 20 | 30 | 40 | 50 | 60 |
| M5     | M5        | ●         | —  | —  | —  | —  | —  |
| 01     | 1/8       | —         | ●  | —  | —  | —  | —  |
| 02     | 1/4       | —         | ●  | ●  | ●  | —  | —  |
| 03     | 3/8       | —         | —  | ●  | ●  | —  | —  |
| 04     | 1/2       | —         | —  | —  | ●  | —  | —  |
| 06     | 3/4       | —         | —  | —  | ●  | ●  | —  |
| 10     | 1         | —         | —  | —  | —  | ●  | ●  |

**Accessories**

| Symbol    | Description                          | Applicable model |
|-----------|--------------------------------------|------------------|
| Nil       | —                                    | —                |
| B Note 3) | With bracket                         | AF20 to 60       |
| C         | Float type Note 4) auto drain (N.C.) | AF10 to 60       |
| D         | Float type Note 4) auto drain (N.O.) | AF30 to 60       |

**Optional specifications**

| Symbol    | Description   | Applicable model |
|-----------|---|------------------|
| 2         | Metal bowl  | AF10 to 60       |
| 6         | Nylon bowl  | AF10 to 60       |
| 8         | Metal bowl with level gauge                                       | AF30 to 60       |
| C         | With bowl guard   | AF20             |
| J Note 5) | Drain guide 1/4   | AF30 to 60       |
| R         | Flow direction: Right to left                                     | AF10 to 60       |
| W         | Drain cock with barb fitting: ø6 x ø4 nylon tubing                | AF30 to 60       |
| Z Note 6) | Name plate and caution plate for bowl in imperial units (PSI, "F) | AF10 to 60       |

Note 1) Drain guide is NPT1/4 (applicable to AF30 to 60), and the exhaust port for auto drain comes with ø3/8" One-touch fitting (applicable to AF30 to 60).

Note 2) Drain guide is G1/4 (applicable to AF30 to 60).

Note 3) Bracket is not assembled and is supplied loose at the time of shipment.

Note 4) Applicable tube O.D for auto drain connection should be ø3/8" in case NPT thread port is chosen.

\* When more than one specification is required, indicate in ascending alphanumeric order.

Note 5) Without a valve function.

Note 6) This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

⊙: Combination available    ⊖: Combination not available

○: Varies depending on the model    △: Available only with NPT thread

## Accessory/Optional specification combinations

| Accessory/Optional specifications                                 | Combination Symbol | Accessory |   |   | Optional specification |   |   |   |   |   |   | Applicable filter |      |      |            |   |
|---|--------------------|-----------|---|---|------------------------|---|---|---|---|---|---|-------------------|------|------|------------|---|
|   |                    | B         | C | D | 2                      | 6 | 8 | C | J | R | W | Z                 | AF10 | AF20 | AF30 to 60 |   |
| <b>Accessories</b>  |                    |           |   |   |                        |   |   |   |   |   |   |                   |      |      |            |   |
| With bracket  | B                  | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| Float type auto drain (N.C.)                                      | C                  | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| Float type auto drain (N.O.)                                      | D                  | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| <b>Optional specifications</b>                                    |                    |           |   |   |                        |   |   |   |   |   |   |                   |      |      |            |   |
| Metal bowl  | -2                 | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| Nylon bowl  | -6                 | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| Metal bowl with level gauge                                       | -8                 | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| With bowl guard   | -C                 | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| Drain guide 1/4   | -J                 | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| Flow direction: Right to left                                     | -R                 | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| Drain cock with barb fitting: ø6 x ø4 nylon tubing                | -W                 | ⊙         | ⊙ | ⊙ | ⊙                      | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙ | ⊙                 | ⊙    | ⊙    | ⊙          | ⊙ |
| Name plate and caution plate for bowl in imperial units (PSI, "F) | -Z                 | △         | △ | △ | △                      | △ | △ | △ | △ | △ | △ | △                 | △    | △    | △          | △ |

## Standard specifications

| Model                             | AF10                          | AF20     | AF30     | AF40          | AF40-06 | AF50   | AF60 |
|-----------------------------------|-------------------------------|----------|----------|---------------|---------|--------|------|
| Port sizes                        | M5 x 0.8                      | 1/8, 1/4 | 1/4, 3/8 | 1/4, 3/8, 1/2 | 3/4     | 3/4, 1 | 1    |
| Fluid                             | Air                           |          |          |               |         |        |      |
| Proof pressure                    | 1.5MPa                        |          |          |               |         |        |      |
| Maximum operating pressure        | 1.0MPa                        |          |          |               |         |        |      |
| Ambient and fluid temperature     | -5 to 60°C (with no freezing) |          |          |               |         |        |      |
| Nominal filtration rating         | 5µm                           |          |          |               |         |        |      |
| Bowl material                     | Polycarbonate                 |          |          |               |         |        |      |
| Bowl guard                        | —                             | Option   | Standard |               |         |        |      |
| Drain capacity (cm <sup>3</sup> ) | 2.5                           | 8        | 25       | 45            | 45      | 45     | 45   |
| Weight (kg)                       | 0.06                          | 0.18     | 0.22     | 0.45          | 0.49    | 0.99   | 1.05 |

## Accessory part no.

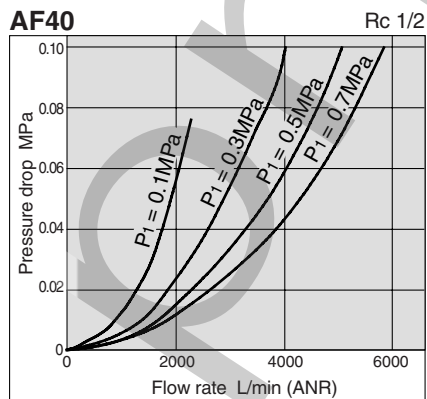
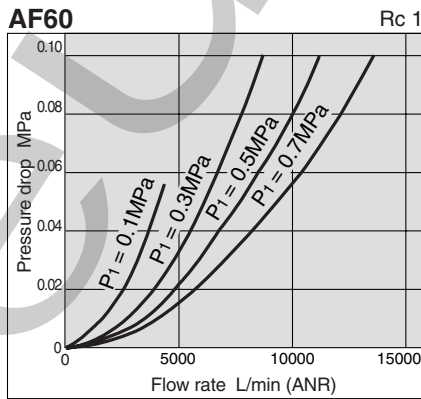
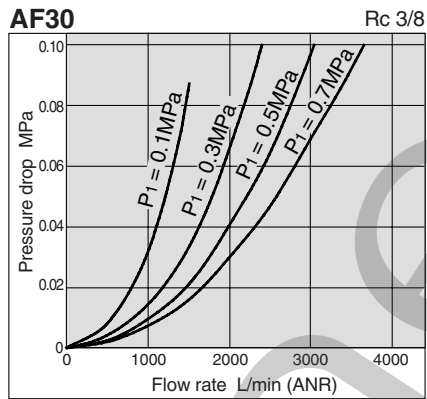
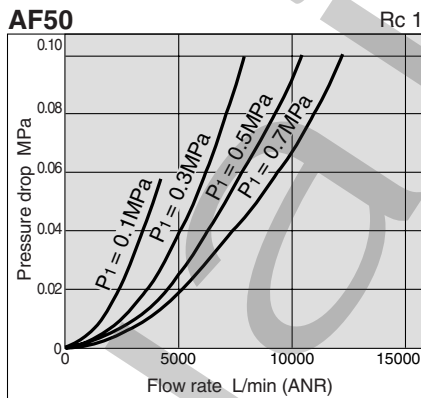
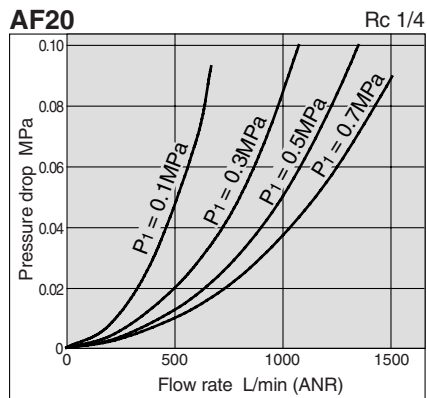
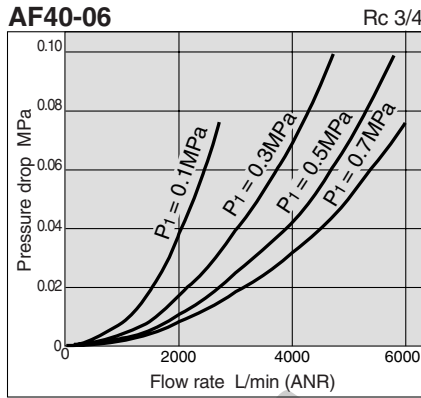
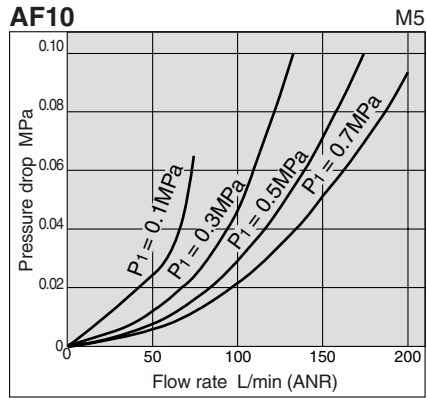
| Accessory                     | Applicable model |             |             |               |               |               |               |               |
|-------------------------------|------------------|-------------|-------------|---------------|---------------|---------------|---------------|---------------|
|                               | AF10             | AF20        | AF30        | AF40          | AF40-06       | AF50          | AF60          |               |
| Bracket assembly Note 1)      | —                | AF20P-050AS | AF30P-050AS | AF40P-050AS   | AF40P-070AS   | AF50P-050AS   | AF50P-050AS   |               |
| Float type auto drain Note 2) | N.O.             | —           | AD38        | AD38N Note 3) | AD48          | AD48N Note 3) | AD48          | AD48N Note 3) |
|                               | N.C.             | AD17        | AD27        | AD37          | AD37N Note 3) | AD47          | AD47N Note 3) | AD47          |

Note 1) Assembly includes a bracket and 2 mounting screws.

Note 2) Minimum operating pressure: N.O. type-0.1MPa; N.C. type-0.1MPa (AD17/27) and 0.15MPa (AD37/47).

Note 3) When "N" is specified in the end of part number of auto drain, applicable tube O.D should be ø3/8".

## Flow Characteristics (Representative values)



### ⚠ Specific Product Precautions

- ▮ Be sure to read before handling.
- ▮ Refer to pages 75 through 78 for safety instructions and F.R.L. unit precautions.

### Maintenance

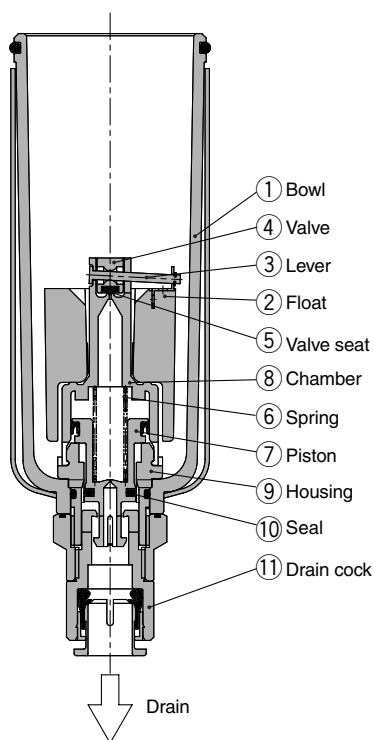
### ⚠ Warning

1. Replace the element every 2 years or when the pressure drop becomes 0.1MPa, whichever comes first, to prevent damage to the element.

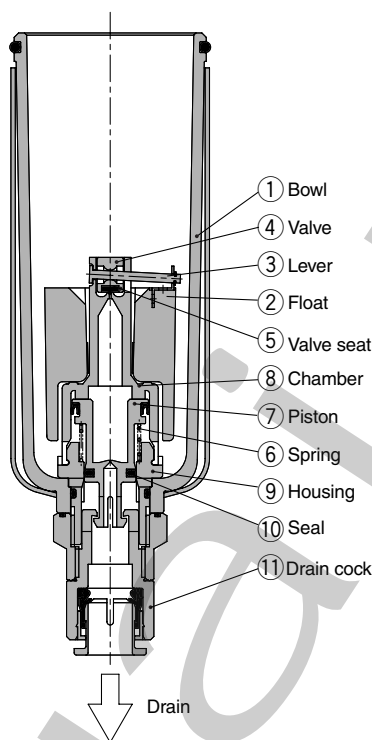
# AF10 to 60

## Operation Principle: Float Type Auto Drain

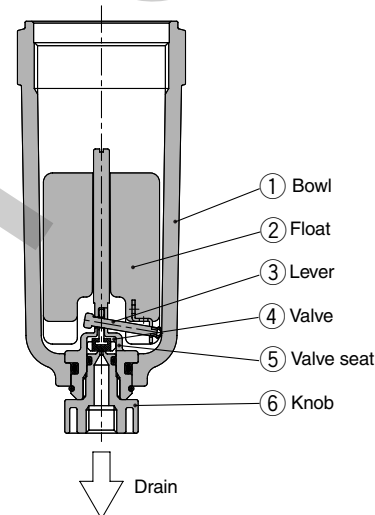
N.O. type: AD38, 48



N.C. type: AD37, 47



Compact auto drain  
N.C. type: AD17, 27



- **When the pressure inside the bowl is released:**

When pressure is released from the bowl ①, piston ⑦ is lowered by spring ⑥.

The sealing action of seal ⑩ is interrupted, and the outside air flows inside the bowl ①, through housing hole ⑨ and drain cock ⑪.

Therefore, if there is an accumulation of condensate in the bowl ①, it will drain out through the drain cock.

- **When pressure is applied inside the bowl:**

When the pressure exceeds 0.1MPa, the force of piston ⑦ surpasses the force of spring ⑥, and the piston goes up.

This pushes seal ⑩ up so that it creates a seal and the inside of the bowl ①, is shut off from the outside air.

If there is no accumulation of condensate in the bowl ①, at this time float ② will be pulled down by its own weight, causing valve ④, which is connected to lever ③, to seal valve seat ⑤.

- **When there is an accumulation of condensate in the bowl:**

Float ② rises due to its own buoyancy and pushes open the seal created by the valve seat, ⑤.

This allows the pressure inside the bowl ①, to enter the chamber ⑧. The result is that the combined pressure inside chamber ⑧ and the force of the spring ⑥, lower the piston ⑦.

This causes the sealing action of seal ⑩ to be interrupted, and the accumulated condensate in the bowl ①, drains out through the drain cock ⑪.

Turning drain cock ⑪ manually counterclockwise lowers piston ⑦, which pushes open the seal created by seal ⑩, thus allowing the condensate to drain out.

- **When the pressure inside the bowl is released:**

Even when pressure inside the bowl ①, is released, spring ⑥ keeps piston ⑦ in its upward position.

This keeps the seal created by the seal ⑩, in place, thus shutting the outside air from inside the bowl ①.

Therefore, even if there should be some condensate accumulation inside the bowl ①, it will not drain out.

- **When pressure is applied inside the bowl:**

Even when pressure is applied inside the bowl ①, the combined force of spring ⑥ and the pressure inside the bowl ①, keeps piston ⑦ in its upward position.

This maintains the seal created by the seal ⑩, in place, thus shutting the outside air from inside the bowl ①.

If there is no accumulation of condensate in the bowl ①, at this time float ② will be pulled down by its own weight, causing valve ④, which is connected to lever ③, to seal valve seat ⑤.

- **When there is an accumulation of condensate in the bowl:**

Float ② rises due to its own buoyancy and pushes open the seal created by the valve seat ⑤. Pressure passes from the bowl to chamber ⑧.

The result is that the pressure inside chamber ⑧ surpasses the force of the spring ⑥, and pushes piston ⑦ downwards.

This causes the sealing action of seal ⑩ to be interrupted and the accumulated condensate in the bowl ①, drains out through the drain cock ⑪.

Turning drain cock ⑪ manually counterclockwise lowers piston ⑦, which pushes open the seal created by seal ⑩, thus allowing the condensate to drain out.

- **When the pressure inside the bowl is released:**

Even when pressure inside the bowl ①, is released, the weight of the float ② causes valve ④, which is connected to lever ③, to seal valve seat ⑤. As a result, the inside of the bowl ①, is shut off from the outside air.

Therefore, even if there is an accumulation of condensate in the bowl ①, it will not drain out.

- **When pressure is applied inside the bowl:**

Even when pressure is applied inside the bowl ①, the weight of the float ②, and the differential pressure that is applied to valve ④ cause valve ④ to seal valve seat ⑤, and the outside air is shut off from the inside of the bowl ①.

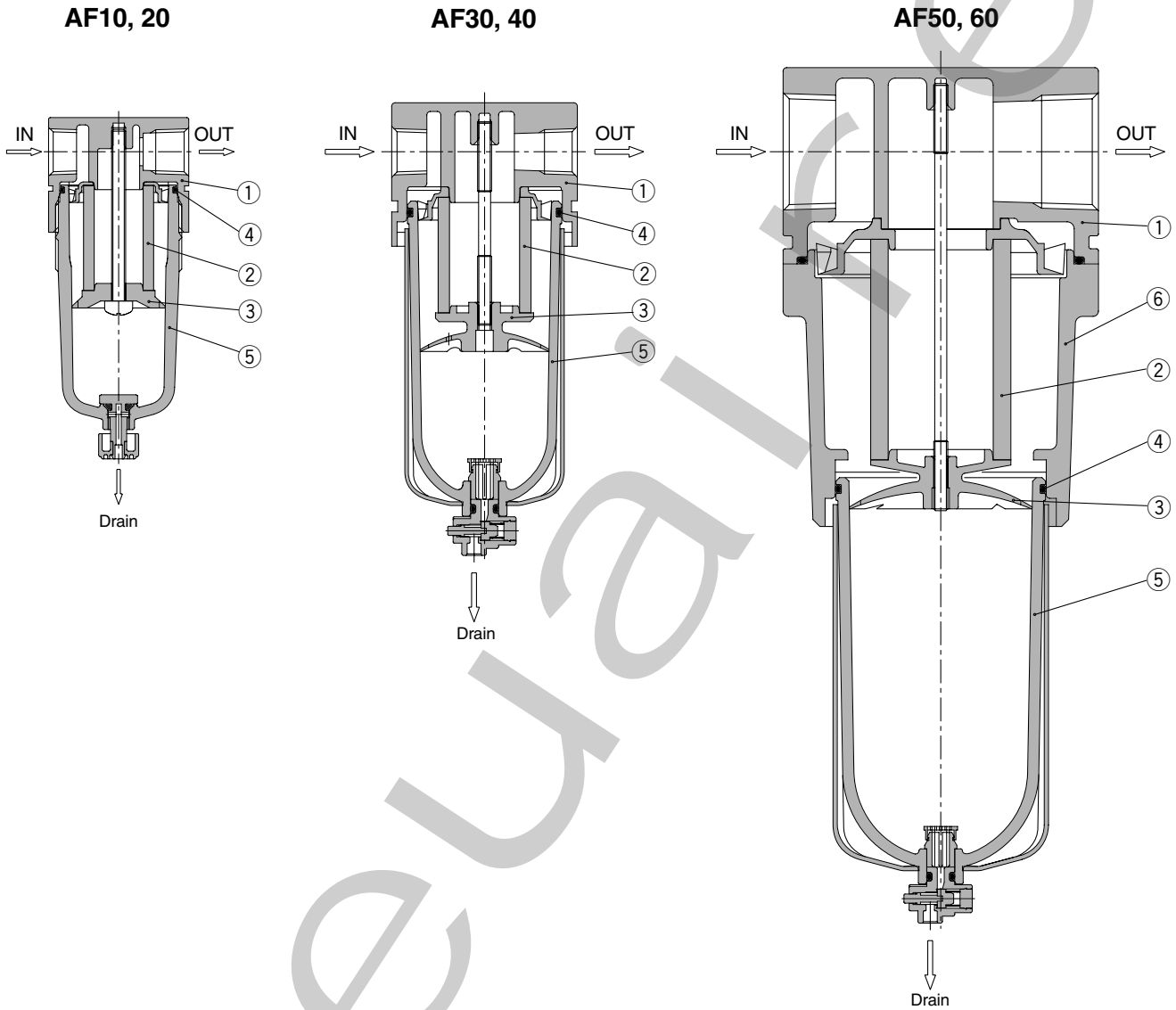
- **When the drain is accumulated in the bowl:**

Float ② rises due to its own buoyancy and the seal at valve seat ⑤ is interrupted.

The condensate inside the bowl ① drains out through the knob, ⑥.

Turning knob ⑥ manually counterclockwise lowers it and causes the sealing action of valve seat ⑤ to be interrupted, thus allowing the condensate to drain out.

**Construction**



**Parts list**

| No. | Description | Material      |                   |                   | Color           |
|-----|-------------|---------------|-------------------|-------------------|-----------------|
|     |             | AF10, 20      | AF30, 40, 40-06   | AF50, 60          |                 |
| 1   | Body        | Zinc die-cast | Aluminum die-cast |                   | Platinum silver |
| 6   | Housing     | —             |                   | Aluminum die-cast | Platinum silver |

**Air filter replacement parts**

| No. | Description                      | Material         | Part no.                      |            |                         |                         |                         |                         |                         |
|-----|----------------------------------|------------------|-------------------------------|------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|     |                                  |                  | AF10                          | AF20       | AF30                    | AF40                    | AF40-06                 | AF50                    | AF60                    |
| 2   | Filter element                   | Non-woven fabric | AF10P-060S                    | AF20P-060S | AF30P-060S              | AF40P-060S              | AF40P-060S              | AF50P-060S              | AF60P-060S              |
| 3   | Baffle                           | PBT              | AF10P-040S <sup>Note 1)</sup> | AF20P-040S | AF30P-040S              | AF40P-040S              | AF40P-040S              | AF50P-040S              | AF60P-040S              |
| 4   | Bowl O-ring                      | NBR              | C1SFP-260S                    | C2SFP-260S | C3SFP-260S              | C4SFP-260S              | C4SFP-260S              | C4SFP-260S              | C4SFP-260S              |
| 5   | Bowl assembly <sup>Note 2)</sup> | PC               | C1SF                          | C2SF       | C3SF <sup>Note 3)</sup> | C4SF <sup>Note 3)</sup> | C4SF <sup>Note 3)</sup> | C4SF <sup>Note 3)</sup> | C4SF <sup>Note 3)</sup> |

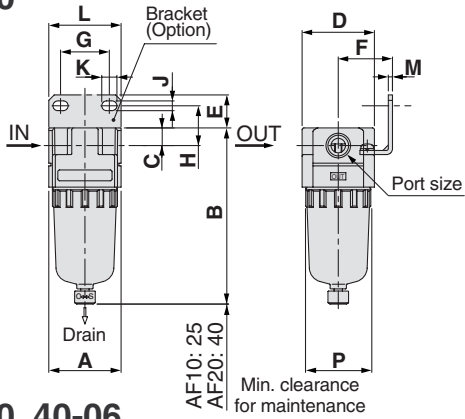


Note 1) The material of the baffle for AF10 (AF10P-040S) only is POM.  
 Note 2) Contact P/A regarding the bowl assembly supply for PSI and °F unit specifications.  
 Note 3) Bowl assembly for AF30 to 60 models comes with a bowl guard (steel band material).

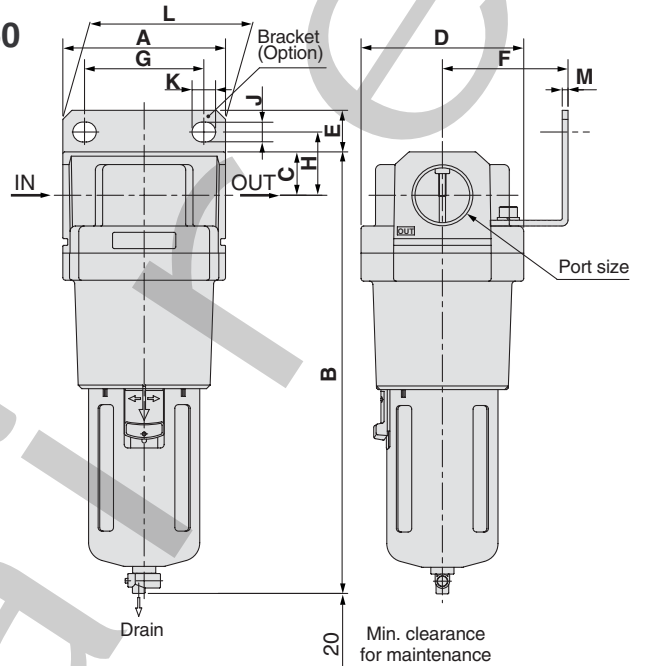
# AF10 to 60

## Dimensions

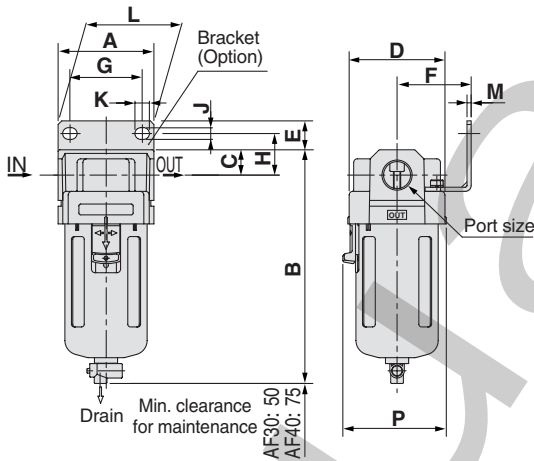
### AF10, 20



### AF50, 60



### AF30, 40, 40-06



| Applicable model        | AF10, AF20             |            | AF30, AF40, AF40-06, AF50, AF60                        |            |                             |                                  |  |
|-------------------------|------------------------|------------|--|------------|-----------------------------|----------------------------------|--|
| Optional specifications | With auto drain (N.C.) | Metal bowl | With auto drain (N.O./N.C.)                            | Metal bowl | Metal bowl with level gauge | With drain guide                 | Drain cock with barb fitting                 |
|                         |                        |            | <br>N.O.: Black<br>N.C.: Gray<br>ø10 One-touch fitting |            |                             | <br>1/4<br>Width across flats 17 | <br>Barb fitting<br>Applicable tubing: T0604 |

| Model   | Port size     | Standard specification |    |    |    |     | Accessory specification |    |     |     |   |   |   |   |   |   |                 |
|---------|---------------|------------------------|----|----|----|-----|-------------------------|----|-----|-----|---|---|---|---|---|---|-----------------|
|         |               | A                      | B  | C  | D  | P   | Bracket mounting size   |    |     |     |   |   |   |   |   |   | With auto drain |
|         |               | E                      | F  | G  | H  | J   | K                       | L  | M   | B   |   |   |   |   |   |   |                 |
| AF10    | M5 x 0.8      | —                      | —  | —  | —  | —   | —                       | —  | —   | —   | — | — | — | — | — | — | 85              |
| AF20    | 1/8, 1/4      | 18                     | 30 | 27 | 22 | 5.4 | 8.4                     | 40 | 2.3 | 115 |   |   |   |   |   |   |                 |
| AF30    | 1/4, 3/8      | 16                     | 41 | 40 | 23 | 6.5 | 8                       | 53 | 2.3 | 170 |   |   |   |   |   |   |                 |
| AF40    | 1/4, 3/8, 1/2 | 17                     | 50 | 54 | 26 | 8.5 | 10.5                    | 70 | 2.3 | 204 |   |   |   |   |   |   |                 |
| AF40-06 | 3/4           | 14                     | 50 | 54 | 25 | 8.5 | 10.5                    | 70 | 2.3 | 208 |   |   |   |   |   |   |                 |
| AF50    | 3/4, 1        | 23                     | 70 | 66 | 35 | 11  | 13                      | 90 | 3.2 | 284 |   |   |   |   |   |   |                 |
| AF60    | 1             | 23                     | 70 | 66 | 35 | 11  | 13                      | 90 | 3.2 | 297 |   |   |   |   |   |   |                 |

| Model   | Optional specification |                   |            |                             |
|---------|------------------------|-------------------|------------|-----------------------------|
|         | With drain guide       | With barb fitting | Metal bowl | Metal bowl with level gauge |
|         | B                      | B                 | B          | B                           |
| AF10    | —                      | —                 | 66         | —                           |
| AF20    | —                      | —                 | 97         | —                           |
| AF30    | 136                    | 137               | 142        | 162                         |
| AF40    | 172                    | 173               | 178        | 198                         |
| AF40-06 | 176                    | 177               | 182        | 202                         |
| AF50    | 252                    | 253               | 258        | 278                         |
| AF60    | 265                    | 266               | 271        | 291                         |

# Air Filter AF20 to 60 Made to Order Specifications

Contact P/A for detailed dimensions, specifications, and lead times.

## ① Special Temperature Environment

Special materials are used in the manufacturing of seals and resin parts to allow them to withstand various temperature conditions in cold or tropical (hot) climates.

### Specifications

| Part no.                   | -X430                         | -X440            |
|----------------------------|-------------------------------|------------------|
| <b>Environment</b>         | Low temperature               | High temperature |
| <b>Ambient temperature</b> | -30 to 60°C                   | -5 to 80°C       |
| <b>Fluid temperature</b>   | -5 to 60°C (with no freezing) |                  |
| <b>Material</b>            | <b>Rubber parts</b>           | Special NBR      |
|                            | <b>Main parts</b>             | FPM              |
|                            | Metal (Aluminum die-cast)     |                  |

### Applicable models

| Model             | AF30       | AF40              | AF40-06 | AF50     | AF60 |
|-------------------|------------|-------------------|---------|----------|------|
| <b>Port sizes</b> | 1/4<br>3/8 | 1/4<br>3/8<br>1/2 | 3/4     | 3/4<br>1 | 1    |

### How to Order

**AF 30 F 03 B 2 R X430**

Air filter | Body size (30, 40, 50, 60) | Thread type (Nil, Rc, NPT, G) | Optional specifications (J, R, Z) | Bowl (2) | Option (B)

**For high/low temperature**  
X430 Low temperature  
X440 High temperature

**Optional specifications**

| Symbol   | Description   | Applicable model |
|----------|---|------------------|
| J Note 5 | Drain guide 1/4   | AF30 to 60       |
| R        | Flow direction: Right to left                                     | AF30 to 60       |
| Z Note 6 | Name plate and caution plate for bowl in imperial units (PSI, °F) | AF30 to 60       |

\* When more than one specification is required, indicate in ascending alphanumeric order.

Note 5) Without a valve function.  
Note 6) For thread type NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

**Bowl**

| Symbol   | Description | Applicable model |
|----------|-------------|------------------|
| 2 Note 4 | Metal bowl  | AF30 to 60       |

Note 4) Only Metal Bowl available.

**Option**

| Symbol   | Description  | Applicable model |
|----------|--------------|------------------|
| Nil      | —            | —                |
| B Note 3 | With bracket | AF30 to 60       |

Note 3) Bracket is not assembled and is supplied loose at the time of shipment.

**Port size**

| Symbol | Port size | Body size |    |    |    |
|--------|-----------|-----------|----|----|----|
|        |           | 30        | 40 | 50 | 60 |
| 02     | 1/4       | ●         | ●  | —  | —  |
| 03     | 3/8       | ●         | ●  | —  | —  |
| 04     | 1/2       | ●         | ●  | —  | —  |
| 06     | 3/4       | —         | ●  | ●  | —  |
| 10     | 1         | —         | —  | ●  | ●  |

Note 1) Drain guide is NPT 1/4 (applicable to AC30 to 60)  
Note 2) Drain guide is G1/4 (applicable to AF30 to 60).

## ② High Pressure

Strong materials are used in the manufacturing of air filters intended for high pressure operation.

### Specifications

| Part no.                             | -X425                         |
|--------------------------------------|-------------------------------|
| <b>Proof pressure</b>                | 3.0MPa                        |
| <b>Maximum operating pressure</b>    | 2.0MPa                        |
| <b>Ambient and fluid temperature</b> | -5 to 60°C (with no freezing) |

### Applicable models

| Model             | AF20       | AF30       | AF40              | AF40-06 | AF50     | AF60 |
|-------------------|------------|------------|-------------------|---------|----------|------|
| <b>Port sizes</b> | 1/8<br>1/4 | 1/4<br>3/8 | 1/4<br>3/8<br>1/2 | 3/4     | 3/4<br>1 | 1    |

### How to Order

**AF 30 F 03 B 2 R X425**

Air filter | Body size (20, 30, 40, 50, 60) | Thread type (Nil, Rc, NPT, G) | Optional specifications (J, R, Z) | Bowl (2) | Option (B)

**For high pressure**

**Optional specifications**

| Symbol   | Description   | Applicable model |
|----------|---|------------------|
| J Note 5 | Drain guide 1/4   | AF30 to 60       |
| R        | Flow direction: Right to left                                     | AF20 to 60       |
| Z Note 6 | Name plate and caution plate for bowl in imperial units (PSI, °F) | AF20 to 60       |

\* When more than one specification is required, indicate in ascending alphanumeric order.

Note 5) Without a valve function.  
Note 6) For thread type NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

**Bowl**

| Symbol   | Description                 | Applicable model |
|----------|-----------------------------|------------------|
| 2 Note 4 | Metal bowl                  | AF20 to 60       |
| 8 Note 3 | Metal bowl with level gauge | AF30 to 60       |

Note 4) Only metal bowl or metal bowl with level gauge available.

**Option**

| Symbol   | Description  | Applicable model |
|----------|--------------|------------------|
| Nil      | —            | —                |
| B Note 3 | With bracket | AF20 to 60       |

Note 3) Bracket is not assembled and is supplied loose at the time of shipment.

**Port size**

| Symbol | Port size | Body size |    |    |    |    |
|--------|-----------|-----------|----|----|----|----|
|        |           | 20        | 30 | 40 | 50 | 60 |
| 01     | 1/8       | ●         | —  | —  | —  | —  |
| 02     | 1/4       | ●         | ●  | —  | —  | —  |
| 03     | 3/8       | —         | ●  | ●  | —  | —  |
| 04     | 1/2       | —         | —  | ●  | ●  | —  |
| 06     | 3/4       | —         | —  | ●  | ●  | —  |
| 10     | 1         | —         | —  | —  | ●  | ●  |

Note 1) Drain guide is NPT 1/4 (applicable to AF30 to 60)  
Note 2) Drain guide is G1/4 (applicable to AF30 to 60).

Note) Contact P/A regarding the detailed dimensions and optional availability.

# Mist Separator

# AFM20/30/40

## How to Order

**AFM 30 - F 03 BD - 2R**

Mist separator → **AFM**  
 Body size → **30**  
 Thread type → **F**  
 Port size → **03**  
 Accessories → **BD**  
 Optional specifications → **2R**

**Accessories**

| Symbol               | Description                                     | Applicable model |
|----------------------|---|------------------|
| Nil                  | —   | —                |
| B <sup>Note 3)</sup> | With bracket                                    | AFM20 to 40      |
| C                    | Float type auto drain (N.C.) <sup>Note 4)</sup> | AFM20 to 40      |
| D                    | Float type auto drain (N.O.) <sup>Note 4)</sup> | AFM30, 40        |

**Port size**

| Symbol | Port size | Body size |    |    |
|--------|-----------|-----------|----|----|
|        |           | 20        | 30 | 40 |
| 01     | 1/8       | ●         | —  | —  |
| 02     | 1/4       | ●         | ●  | ●  |
| 03     | 3/8       | —         | ●  | ●  |
| 04     | 1/2       | —         | —  | ●  |
| 06     | 3/4       | —         | —  | ●  |

**Optional specifications**

| Symbol               | Description   | Applicable model |
|----------------------|---|------------------|
| 2                    | Metal bowl  | AFM20 to 40      |
| 6                    | Nylon bowl  | AFM20 to 40      |
| 8                    | Metal bowl with level gauge                                       | AFM30, 40        |
| C                    | With bowl guard   | AFM20            |
| J <sup>Note 5)</sup> | Drain guide 1/4   | AFM30, 40        |
| R                    | Flow direction: Right to left                                     | AFM20 to 40      |
| W                    | Drain cock with barb fitting: ø6 x ø4 nylon tube                  | AFM30, 40        |
| Z <sup>Note 6)</sup> | Name plate and caution plate for bowl in imperial units (PSI, °F) | AFM20 to 40      |

**Notes:**  
 Note 1) Drain guide is NPT1/4 (applicable to AFM30 and 40), and the exhaust port for auto drain comes with ø3/8" One-touch fitting (applicable to AFM30 and 40).  
 Note 2) Drain guide is G1/4 (applicable to AFM30 and 40).  
 Note 3) Bracket is not assembled and is supplied loose at the time of shipment.  
 Note 4) Applicable tube O.D for auto drain connection should be ø3/8" in case NPT thread port is chosen.  
 Note 5) Without a valve function.  
 Note 6) For NPT thread type.  
 \* When more than one specification is required, indicate in ascending alphanumeric order.  
 This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

## Accessory/Optional specification combinations

| Combination   | Symbol | Accessory |   |   | Optional specification |   |   |   |   |   |   | Applicable mist separator |       |             |
|---|--------|-----------|---|---|------------------------|---|---|---|---|---|---|---------------------------|-------|-------------|
|   |        | B         | C | D | 2                      | 6 | 8 | C | J | R | W | Z                         | AFM20 | AFM30 to 40 |
| <b>Accessories</b>  |        |           |   |   |                        |   |   |   |   |   |   |                           |       |             |
| With bracket  | B      |           | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △                         | ○     | ○           |
| Float type auto drain (N.C.)                                      | C      | ○         |   |   | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △                         | ○     | ○           |
| Float type auto drain (N.O.)                                      | D      | ○         |   |   | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △                         | ○     | ○           |
| <b>Optional specifications</b>                                    |        |           |   |   |                        |   |   |   |   |   |   |                           |       |             |
| Metal bowl  | -2     | ○         | ○ | ○ |                        |   |   |   |   |   |   | △                         | ○     | ○           |
| Nylon bowl  | -6     | ○         | ○ | ○ |                        |   |   |   |   |   |   | △                         | ○     | ○           |
| Metal bowl with level gauge                                       | -8     | ○         | ○ | ○ |                        |   |   |   |   |   |   | △                         |       | ○           |
| With bowl guard   | -C     | ○         | ○ |   |                        |   |   |   |   |   |   | △                         | ○     |             |
| Drain guide 1/4   | -J     | ○         |   |   | ○                      | ○ | ○ |   |   |   |   | △                         |       | ○           |
| Flow direction: Right to left                                     | -R     | ○         | ○ | ○ | ○                      | ○ | ○ | ○ |   |   |   | △                         | ○     | ○           |
| Drain cock with barb fitting: ø6 x ø4 nylon tubing                | -W     | ○         |   |   | ○                      |   |   |   |   |   |   | △                         |       | ○           |
| Name plate and caution plate for bowl in imperial units (PSI, °F) | -Z     | △         | △ | △ | △                      | △ | △ | △ | △ | △ | △ |                           | △     | △           |

○ : Combination available  
 ○ : Varies depending on the model  
 ◻ : Combination not available  
 △ : Available only with NPT thread



## Standard specifications

| Model   | AFM20   | AFM30      | AFM40             | AFM40-06 |
|---|---|------------|-------------------|----------|
| <b>Port sizes</b>                               | 1/8<br>1/4  | 1/4<br>3/8 | 1/4<br>3/8<br>1/2 | 3/4      |
| <b>Fluid</b>                                    | Air   |            |                   |          |
| <b>Proof pressure</b>                           | 1.5MPa  |            |                   |          |
| <b>Maximum operating pressure</b>               | 1.0MPa  |            |                   |          |
| <b>Minimum operating pressure</b>               | 0.05MPa   |            |                   |          |
| <b>Ambient and fluid temperature</b>            | -5 to 60°C (with no freezing)   |            |                   |          |
| <b>Rated flow L/min (ANR)<sup>Note 1)</sup></b> | 200   | 450        | 1100              | 1100     |
| <b>Nominal filtration rating</b>                | 0.3µm (95% filtered particle size)  |            |                   |          |
| <b>Outlet side oil mist concentration</b>       | Maximum 1.0 <sup>m</sup> g/m <sup>3</sup> (ANR) (approx. 0.8ppm) <sup>Note 2)</sup> |            |                   |          |
| <b>Bowl material</b>                            | Polycarbonate   |            |                   |          |
| <b>Bowl guard</b>                               | option  |            | Standard          |          |
| <b>Drain capacity (cm<sup>3</sup>)</b>          | 8   | 25         | 45                | 45       |
| <b>Weight (kg)</b>                              | 0.18  | 0.22       | 0.44              | 0.49     |

Note 1) When the inlet pressure is 0.7MPa. Flow rate varies depending on the inlet pressure.  
 Note 2) When the compressor oil mist discharge concentration is 30mg/m<sup>3</sup> (ANR).

## Accessory part no.

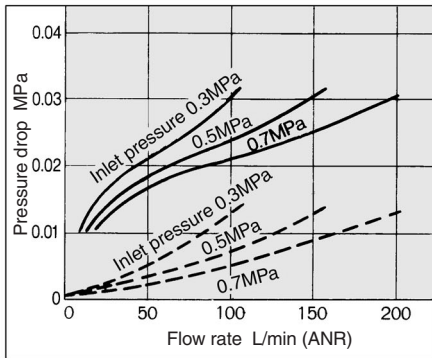
| Applicable model                               | AFM20       | AFM30       | AFM40                         | AFM40-06                      |
|--|-------------|-------------|-------------------------------|-------------------------------|
| <b>Accessory</b>                               |             |             |                               |                               |
| <b>Bracket assembly<sup>Note 1)</sup></b>      | AF20P-050AS | AF30P-050AS | AF40P-050AS                   | AF40P-070AS                   |
| <b>Float type auto drain<sup>Note 2)</sup></b> | N.O.        | —           | AD38 AD38N <sup>Note 3)</sup> | AD48 AD48N <sup>Note 3)</sup> |
|  | N.C.        | AD27        | AD37 AD37N <sup>Note 3)</sup> | AD47 AD47N <sup>Note 3)</sup> |

Note 1) Assembly includes a bracket and 2 mounting screws.  
 Note 2) Minimum operating pressure: N.O. type-0.1MPa; N.C. type-0.1MPa (AD17/27) and 0.15MPa (AD37/47).  
 Note 3) When "N" is specified in the end of part number of auto drain, applicable tube O.D should be ø3/8".

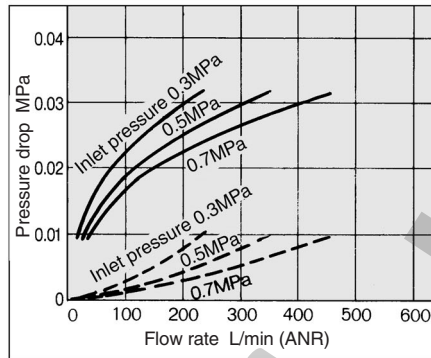


**Flow Characteristics** (Representative values)

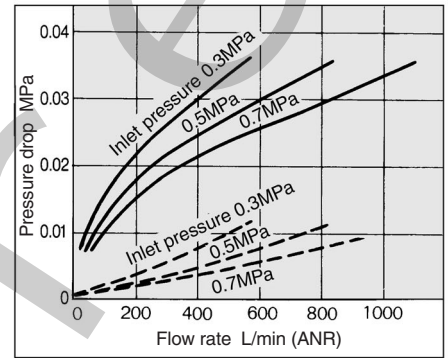
**AFM20**



**AFM30**

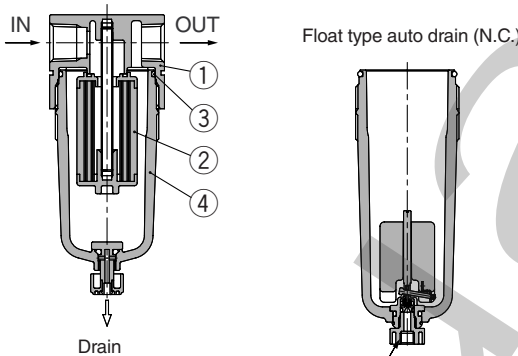


**AFM40**

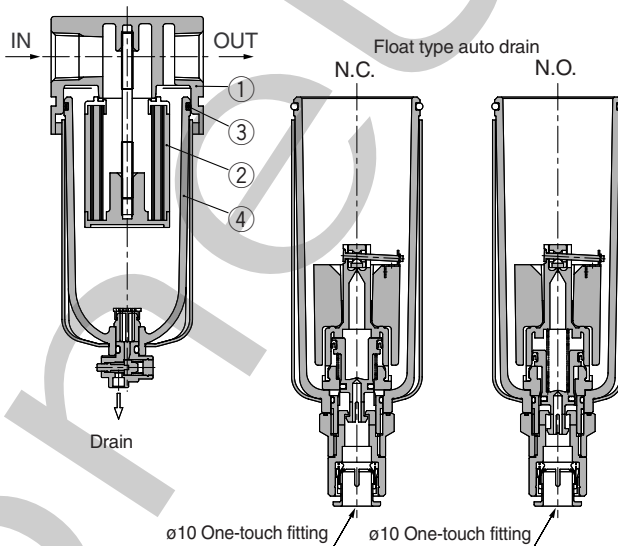


**Construction**

**AFM20**



**AFM30, 40**



**Specific Product Precautions**

Be sure to read before handling. Refer to pages 75 through 78 for safety instructions and F.R.L. unit precautions.

**Air Supply**

**Caution**

1. Install an air filter (Series AF) as a preliminary filter on the inlet side of the mist separator to prevent premature clogging.
2. Do not install on the inlet side of the dryer as this can cause premature clogging of the element.

**Maintenance**

**Warning**

1. Replace the element every 2 years or when the pressure drop becomes 0.1MPa, whichever comes first, to prevent damage to the element.

**Design**

**Caution**

1. Design the system so that the mist separator is installed in a pulsation-free location. The difference between internal and external pressure inside the element should be kept within 0.1MPa, as exceeding this value could cause damage.

**Selection**

**Caution**

1. Do not allow air flow that exceeds the rated flow. If the air flow is allowed outside the range of the rated flow even momentarily, drainage and lubricant may splash at the outlet side or cause damage to the component.
2. Do not use in a low pressure application (such as a blower). F.R.L. unit has its own minimum operating pressure depending on the equipment and is designed specifically to function with compressed air. If used below the minimum operating pressure, a loss of performance and malfunction can occur. Contact P/A if an application under such conditions cannot be avoided.

**Parts list**

| No. | Description | Material      |                        | Note            |
|-----|-------------|---------------|------------------------|-----------------|
|     |             | AFM20         | AFM30, AFM40, AFM40-06 |                 |
| 1   | Body        | Zinc die-cast | Aluminum die-cast      | Platinum silver |

**Replacement parts**

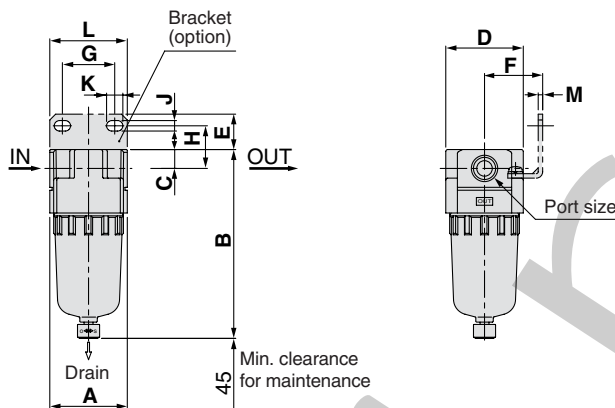
| No. | Description                      | Material | Part no.     |                         |                         |                         |
|-----|----------------------------------|----------|--------------|-------------------------|-------------------------|-------------------------|
|     |                                  |          | AFM20        | AFM30                   | AFM40                   | AFM40-06                |
| 2   | Element assembly                 | —        | AFM20P-060AS | AFM30P-060AS            | AFM40P-060AS            | AFM40P-060AS            |
| 3   | Bowl O-ring                      | NBR      | C2SFP-260S   | C3SFP-260S              | C4SFP-260S              | C4SFP-260S              |
| 4   | Bowl assembly <sup>Note 1)</sup> | PC       | C2SF         | C3SF <sup>Note 2)</sup> | C4SF <sup>Note 2)</sup> | C4SF <sup>Note 2)</sup> |

Note 1) Including O-Ring. Contact P/A regarding the bowl assembly supply for PSI and °F unit specifications.  
 Note 2) Bowl assembly for AFM30 to AFM40-06 includes a bowl guard (steel band material).

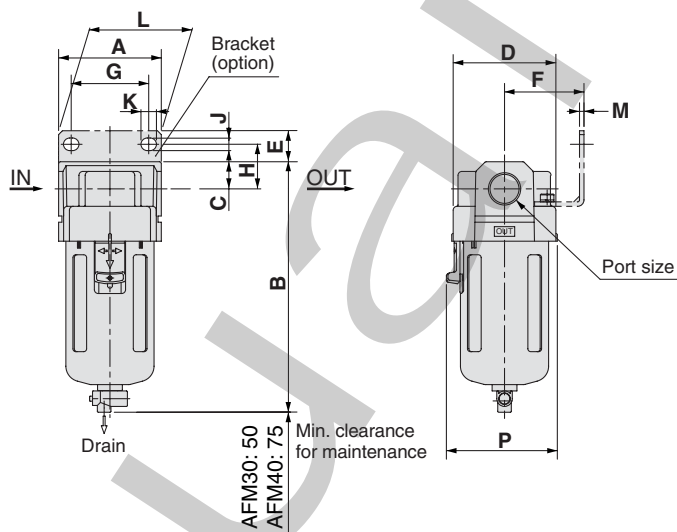
# AFM20/30/40

## Dimensions

### AFM20



### AFM30, 40, 40-06



| Applicable model        | AFM20                  |            | AFM30, AFM40, AFM40-06                                  |            |                             |                                   |   |
|-------------------------|------------------------|------------|---|------------|-----------------------------|-----------------------------------|---|
|                         | With auto drain (N.C.) | Metal bowl | With auto drain (N.O./N.C.)                             | Metal bowl | Metal bowl with level gauge | With drain guide                  | Drain cock with barb fitting                  |
| Optional specifications | M5 x 0.8               | B          | N.O.: Black<br>N.C.: Gray<br>ø10 One-touch fitting<br>B | B          | B                           | 1/4<br>Width across flats 17<br>B | Barb fitting<br>Applicable tubing: T0604<br>B |

| Model    | Port size     | Standard specification |     |    |    |    | Accessory specification |    |    |    |     |      |    |     |     |
|----------|---------------|------------------------|-----|----|----|----|-------------------------|----|----|----|-----|------|----|-----|-----|
|          |               | A                      | B   | C  | D  | P  | With bracket            |    |    |    |     |      |    |     |     |
|          |               |                        |     |    |    |    | E                       | F  | G  | H  | J   | K    | L  | M   | B   |
| AFM20    | 1/8, 1/4      | 40                     | 97  | 10 | 40 | —  | 18                      | 30 | 27 | 22 | 5.4 | 8.4  | 40 | 2.3 | 115 |
| AFM30    | 1/4, 3/8      | 53                     | 129 | 14 | 53 | 57 | 16                      | 41 | 40 | 23 | 6.5 | 8    | 53 | 2.3 | 170 |
| AFM40    | 1/4, 3/8, 1/2 | 70                     | 165 | 18 | 70 | 73 | 17                      | 50 | 54 | 26 | 8.5 | 10.5 | 70 | 2.3 | 204 |
| AFM40-06 | 3/4           | 75                     | 169 | 20 | 70 | 73 | 14                      | 50 | 54 | 25 | 8.5 | 10.5 | 70 | 2.3 | 208 |

| Model    | Optional specification |                   |            |                             |
|----------|------------------------|-------------------|------------|-----------------------------|
|          | With drain guide       | With barb fitting | Metal bowl | Metal bowl with level gauge |
| AFM20    | —                      | —                 | B          | —                           |
| AFM30    | 136                    | 137               | B          | 162                         |
| AFM40    | 172                    | 173               | B          | 198                         |
| AFM40-06 | 176                    | 177               | B          | 202                         |

# Micro-Mist Separator

## AFD20/30/40

### How to Order

**AFD 30 — F 03 BD — 2R**

Micro-mist separator: **AFD**  
Body size: **30**  
Thread type: **F**  
Port size: **03**  
Accessories: **BD**  
Optional specifications: **2R**

**Thread type**

|           |     |
|-----------|-----|
| Nil       | Rc  |
| N Note 1) | NPT |
| F Note 2) | G   |

**Port size**

| Symbol | Port size | Body size |    |    |
|--------|-----------|-----------|----|----|
| 01     | 1/8       | 20        | 30 | 40 |
| 02     | 1/4       | ●         | ●  | —  |
| 03     | 3/8       | —         | ●  | ●  |
| 04     | 1/2       | —         | —  | ●  |
| 06     | 3/4       | —         | —  | ●  |

**Accessories**

| Symbol               | Description                                     | Applicable model |
|----------------------|---|------------------|
| Nil                  | —   | —                |
| B <sup>Note 3)</sup> | With bracket                                    | AFD20 to 40      |
| C                    | Float type auto drain (N.C.) <sup>Note 4)</sup> | AFD20 to 40      |
| D                    | Float type auto drain (N.O.) <sup>Note 4)</sup> | AFD30, 40        |

**Optional specifications**

| Symbol               | Description   | Applicable model |
|----------------------|---|------------------|
| 2                    | Metal bowl  | AFD20 to 40      |
| 6                    | Nylon bowl  | AFD20 to 40      |
| 8                    | Metal bowl with level gauge                                       | AFD30, 40        |
| C                    | With bowl guard   | AFD20            |
| J <sup>Note 5)</sup> | Drain guide 1/4   | AFD30, 40        |
| R                    | Flow direction: Right to left                                     | AFD20 to 40      |
| W                    | Drain cock with barb fitting: ø6 x ø4 nylon tube                  | AFD30, 40        |
| Z <sup>Note 6)</sup> | Name plate and caution plate for bowl in imperial units (PSI, °F) | AFD20 to 40      |

Note 1) Drain guide is NPT1/4 (applicable to AFD30 and 40), and the exhaust port for auto drain comes with ø3/8" One-touch fitting (applicable to AFD30 and 40).  
Note 2) Drain guide is G1/4 (applicable to AFD30 and 40).  
Note 3) Bracket is not assembled and is supplied loose at the time of shipment.  
Note 4) Applicable tube O.D for auto drain connection should be ø3/8" in case NPT thread port is chosen.  
\* When more than one specification is required, indicate in ascending alphanumerical order.  
Note 5) Without a valve function. Note 6) For NPT thread type.

### Accessory/Optional specification combinations

| Combination   | Symbol | Accessory |   |   | Optional specification |   |   |   |   |   |   |   | Applicable micro mist separator |             |  |  |
|---|--------|-----------|---|---|------------------------|---|---|---|---|---|---|---|---------------------------------|-------------|--|--|
|   |        | B         | C | D | 2                      | 6 | 8 | C | J | R | W | Z | AFD20                           | AFD30 to 40 |  |  |
| <b>Accessories</b>  |        |           |   |   |                        |   |   |   |   |   |   |   |                                 |             |  |  |
| With bracket  | B      | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| Float type auto drain (N.C.)                                      | C      | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| Float type auto drain (N.O.)                                      | D      | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| <b>Optional specifications</b>                                    |        |           |   |   |                        |   |   |   |   |   |   |   |                                 |             |  |  |
| Metal bowl  | -2     | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| Nylon bowl  | -6     | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| Metal bowl with level gauge                                       | -8     | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| With bowl guard   | -C     | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| Drain guide 1/4   | -J     | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| Flow direction: Right to left                                     | -R     | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| Drain cock with barb fitting: ø6 x ø4 nylon tube                  | -W     | ○         | ○ | ○ | ○                      | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○                               | ○           |  |  |
| Name plate and caution plate for bowl in imperial units (PSI, °F) | -Z     | △         | △ | △ | △                      | △ | △ | △ | △ | △ | △ | △ | △                               | △           |  |  |

### Standard specifications

| Model                                     | AFD20  | AFD30      | AFD40             | AFD40-06 |
|---|--|------------|-------------------|----------|
| Port size                                 | 1/8<br>1/4   | 1/4<br>3/8 | 1/4<br>3/8<br>1/2 | 3/4      |
| Fluid                                     | Air  |            |                   |          |
| Proof pressure                            | 1.5MPa   |            |                   |          |
| Maximum operating pressure                | 1.0MPa   |            |                   |          |
| Minimum operating pressure                | 0.05MPa  |            |                   |          |
| Ambient and fluid temperature             | -5 to 60°C (with no freezing)  |            |                   |          |
| Rated flow L/min (ANR) <sup>Note 1)</sup> | 120  | 240        | 600               | 600      |
| Nominal filtration rating                 | 0.01µm (95% filtered particle size)  |            |                   |          |
| Outlet side oil mist concentration        | Max.0.1mg/m <sup>3</sup> (ANR) (before saturated with oil: 0.01mg/m <sup>3</sup> (ANR) or less, approx. 0.008ppm) <sup>Note 2)</sup> |            |                   |          |
| Bowl material                             | Polycarbonate  |            |                   |          |
| Bowl guard                                | Option   | Standard   |                   |          |
| Drain capacity (cm <sup>3</sup> )         | 8  | 25         | 45                | 45       |
| Weight (kg)                               | 0.18   | 0.22       | 0.44              | 0.49     |

Note 1) When the inlet pressure is 0.7MPa. The flow rate varies depending on the inlet pressure.  
Note 2) When the compressor oil mist discharge concentration is 30mg/m<sup>3</sup> (ANR).

### Accessory part no.

| Accessory                                | Applicable model |             |                          |                          |                          |
|--|------------------|-------------|--------------------------|--------------------------|--------------------------|
|  | AFD20            | AFD30       | AFD40                    | AFD40-06                 |                          |
| Bracket assembly <sup>Note 1)</sup>      | AF20P-050AS      | AF30P-050AS | AF40P-050AS              | AF40P-070AS              |                          |
| Float type auto drain <sup>Note 2)</sup> | N.O.             | AD38        | AD38N <sup>Note 3)</sup> | AD48                     | AD48N <sup>Note 3)</sup> |
|  | N.C.             | AD27        | AD37                     | AD37N <sup>Note 3)</sup> | AD47                     |

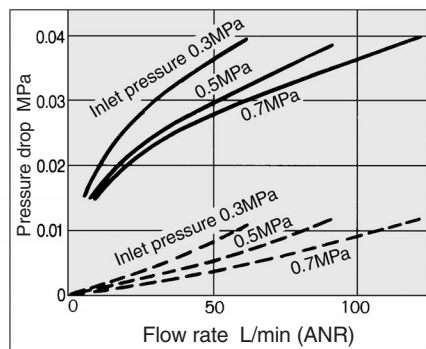
Note 1) Assembly includes a bracket and 2 mounting screws.  
Note 2) Minimum operating pressure: N.O. type=0.1MPa; N.C. type=0.1MPa (AD27) and 0.15MPa (AD37/47).  
Note 3) When "N" is specified in the end of part number of auto drain, applicable tube O.D should be ø3/8".



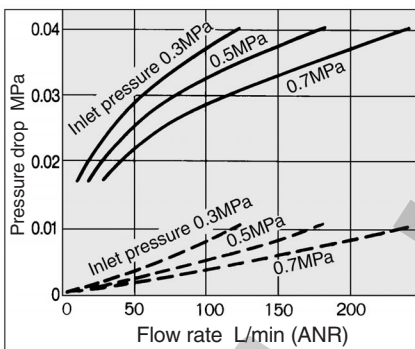
# AFD20/30/40

## Flow Characteristics (Representative values)

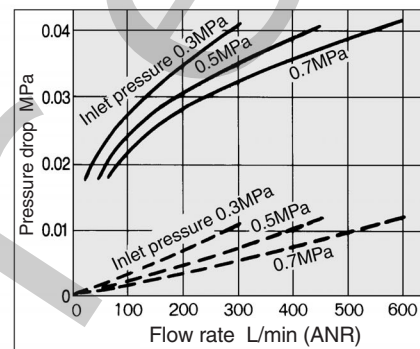
AFD 20



AFD 30

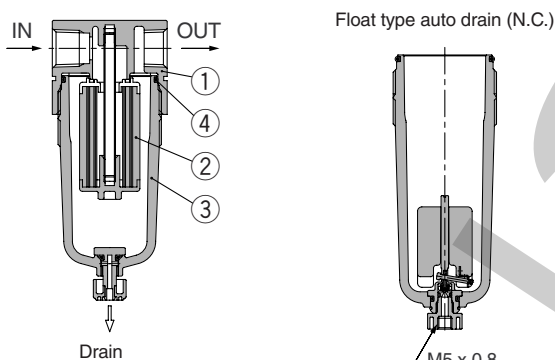


AFD 40

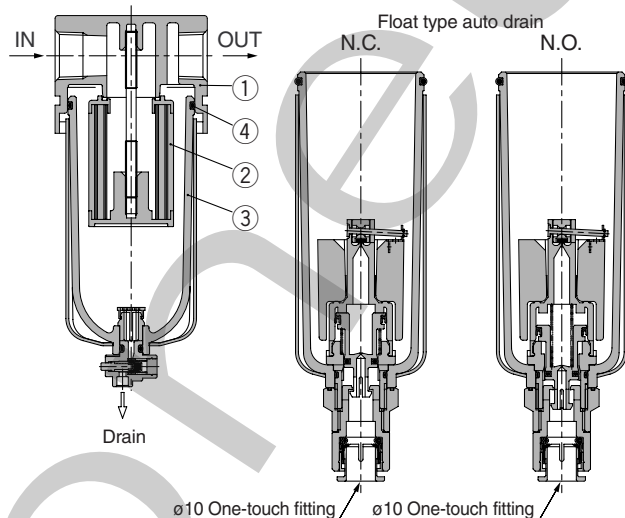


## Construction

AFD20



AFD30, 40



## Specific Product Precautions

Be sure to read before handling.  
Refer to pages 75 through 78 for safety instructions and F.R.L. unit precautions.

### Air Supply

## Caution

1. Install a mist separator (Series AFM) as a preliminary filter on the inlet side of the micro-mist separator to prevent premature clogging.
2. Do not install on the inlet side of the dryer as this can cause premature clogging of the element.

### Maintenance

## Warning

1. Replace the element every 2 years or when the pressure drops becomes 0.1MPa, whichever comes first, to prevent damage to the element.

### Design

## Caution

1. Design the system so that the mist separator is installed in a pulsation-free location. The difference between internal and external pressure inside the element should be kept within 0.1MPa, as exceeding this value could cause damage.

### Selection

## Caution

1. Do not allow air flow that exceeds the rated flow. If the air flow is allowed outside the range of the rated flow even momentarily, drainage and lubricant may splash at the outlet side or cause damage to the component.
2. Do not use in a low pressure application (such as a blower). F.R.L. unit has its own minimum operating pressure depending on the equipment and is designed specifically to function with compressed air. If used below the minimum operating pressure, a loss of performance and malfunction can occur. Contact P/A if an application under such conditions cannot be avoided.

### Parts list

| No. | Description | Material      |                        | Note            |
|-----|-------------|---------------|------------------------|-----------------|
|     |             | AFD20         | AFD30, AFD40, AFD40-06 |                 |
| 1   | Body        | Zinc die-cast | Aluminum die-cast      | Platinum silver |

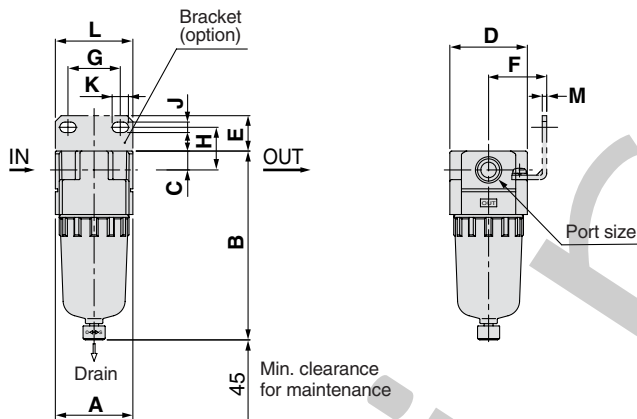
### Replacement parts

| No. | Description                      | Material | Part no.     |                         |                         |                         |
|-----|----------------------------------|----------|--------------|-------------------------|-------------------------|-------------------------|
|     |                                  |          | AFD20        | AFD30                   | AFD40                   | AFD40-06                |
| 2   | Element assembly                 | —        | AFD20P-060AS | AFD30P-060AS            | AFD40P-060AS            | AFD40P-060AS            |
| 3   | Bowl assembly <sup>Note 1)</sup> | PC       | C2SF         | C3SF <sup>Note 2)</sup> | C4SF <sup>Note 2)</sup> | C4SF <sup>Note 2)</sup> |
| 4   | Bowl O-ring                      | NBR      | C2SFP-260S   | C3SFP-260S              | C4SFP-260S              | C4SFP-260S              |

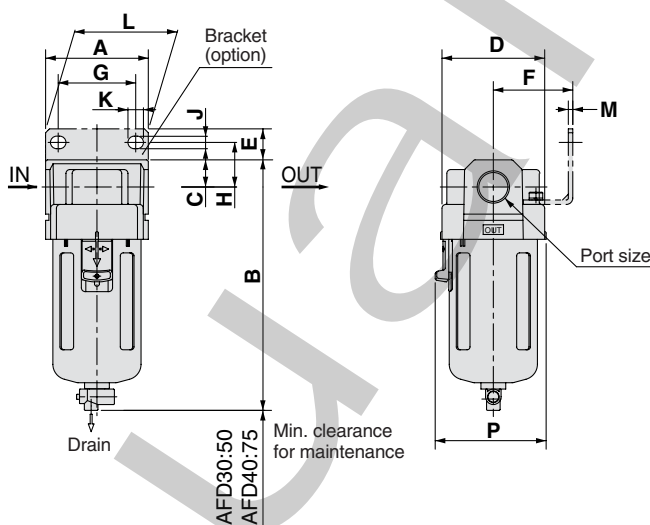
Note 1) Including O-Ring. Contact P/A regarding the bowl assembly supply for PSI and °F unit specifications.  
Note 2) Bowl assembly for AFD30 to AFD40-06 includes a bowl guard (steel band material).

**Dimensions**

**AFD20**



**AFD30, 40, 40-06**



| Applicable model        | AFD20                          |            |                             | AFD30, AFD40, AFD40-06 |                             |                  |                              |
|-------------------------|--------------------------------|------------|-----------------------------|------------------------|-----------------------------|------------------|------------------------------|
| Optional specifications | With compact auto drain (N.C.) | Metal bowl | With auto drain (N.O./N.C.) | Metal bowl             | Metal bowl with level gauge | With drain guide | Drain cock with barb fitting |
|                         |                                |            |                             |                        |                             |                  |                              |

| Model    | Port size     | Standard specification |     |    |    |    | Accessory specification |    |    |    |     |      |    |     |     |  |
|----------|---------------|------------------------|-----|----|----|----|-------------------------|----|----|----|-----|------|----|-----|-----|--|
|          |               | A                      | B   | C  | D  | P  | With bracket            |    |    |    |     |      |    |     |     |  |
|          |               | E                      | F   | G  | H  | J  | K                       | L  | M  | B  |     |      |    |     |     |  |
| AFD20    | 1/8, 1/4      | 40                     | 97  | 10 | 40 | —  | 18                      | 30 | 27 | 22 | 5.4 | 8.4  | 40 | 2.3 | 115 |  |
| AFD30    | 1/4, 3/8      | 53                     | 129 | 14 | 53 | 57 | 16                      | 41 | 40 | 23 | 6.5 | 8    | 53 | 2.3 | 170 |  |
| AFD40    | 1/4, 3/8, 1/2 | 70                     | 165 | 18 | 70 | 73 | 17                      | 50 | 54 | 26 | 8.5 | 10.5 | 70 | 2.3 | 204 |  |
| AFD40-06 | 3/4           | 75                     | 169 | 20 | 70 | 73 | 14                      | 50 | 54 | 25 | 8.5 | 10.5 | 70 | 2.3 | 208 |  |

| Model    | Optional specification |                   |            |                             |   |
|----------|------------------------|-------------------|------------|-----------------------------|---|
|          | With drain guide       | With barb fitting | Metal bowl | Metal bowl with level gauge |   |
|          |                        | B                 | B          | B                           | B |
| AFD20    | —                      | —                 | 97         | —                           |   |
| AFD30    | 136                    | 137               | 142        | 162                         |   |
| AFD40    | 172                    | 173               | 178        | 198                         |   |
| AFD40-06 | 176                    | 177               | 182        | 202                         |   |