



# Main Line Filter

## Series AFF

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



AFF□B

AFF□A

JIS Symbol



P. 14-20-55

### Caution

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

### Specifications

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

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



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

### Accessory (Option)/For AFF2B to AFF75B

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

### Accessory (Option)/For AFF75A to AFF220A

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

### Model

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



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

### Model Selection

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

(Example) Inlet pressure: 0.6 MPa

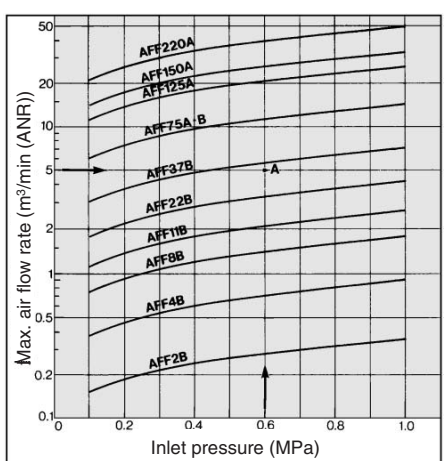
Max. air flow capacity: 5 m<sup>3</sup>/min (ANR)

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



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

### Max. Air Flow



HA

AT

ID

AMG

**AFF**

AM

Misc.

# Series AFF

## How to Order

### AFF2B to AFF75B

**AFF 8B** — **03** **B** — **J**

**Body size**

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

**Thread type**

|     |     |
|-----|-----|
| Nil | Rc  |
| F   | G   |
| N   | NPT |

**Port size**

|    |                  |    |                    |
|----|------------------|----|--------------------|
| 01 | 1/8 <sup>B</sup> | 06 | 3/4 <sup>B</sup>   |
| 02 | 1/4 <sup>B</sup> | 10 | 1 <sup>B</sup>     |
| 03 | 3/8 <sup>B</sup> | 14 | 1 1/2 <sup>B</sup> |
| 04 | 1/2 <sup>B</sup> | 20 | 2 <sup>B</sup>     |

**Accessory (Option) \***

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

**Option \***

|   |  |
|---|--|
| J | Drain guide 1/4 <sup>B</sup> female thread |
| R | IN-OUT reversal direction                  |
| T | Element service indicator                  |

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

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

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

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

### AFF75A to AFF220A

**AFF 75A** — **20** **D**

**Basic size**  
(Applicable compressor rating)

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

**Accessory (Option)**

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

**Port size**

|    |                               |
|----|-------------------------------|
| 20 | 2 <sup>B</sup> JIS 10k flange |
| 30 | 3 <sup>B</sup> JIS 10k flange |
| 40 | 4 <sup>B</sup> JIS 10k flange |

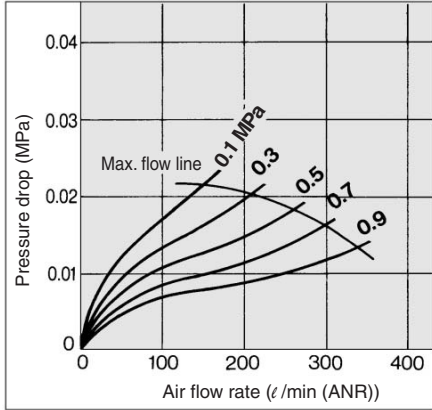
# Main Line Filter Series AFF

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

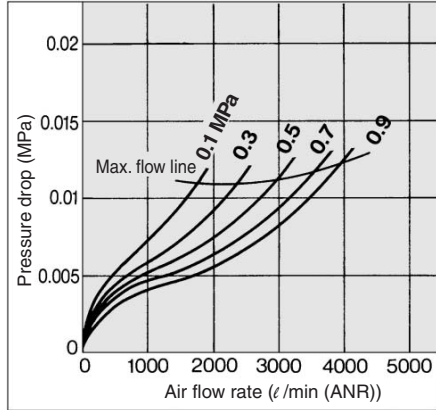


Note) Compressed air over max. flow line in the table below may not meet the specifications of the product. It may cause damage to the element.

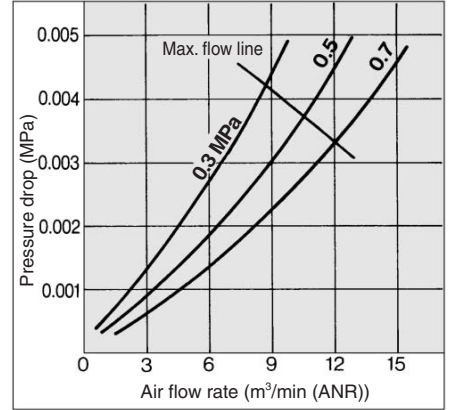
**AFF2B** 1/8B



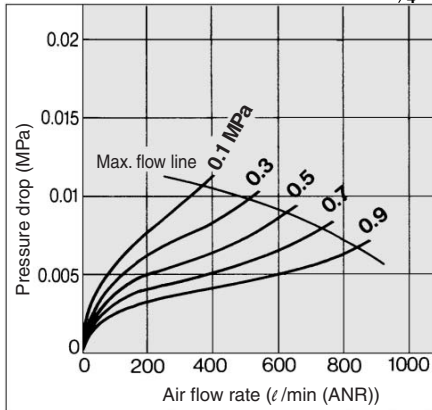
**AFF22B** 3/4B



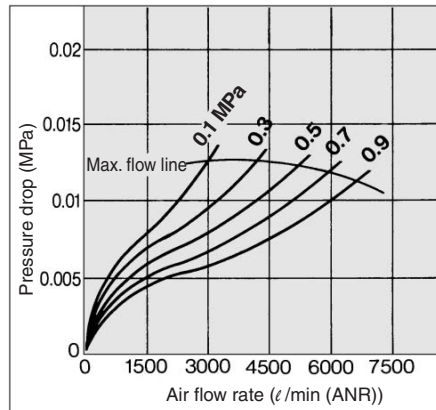
**AFF75A** 2B



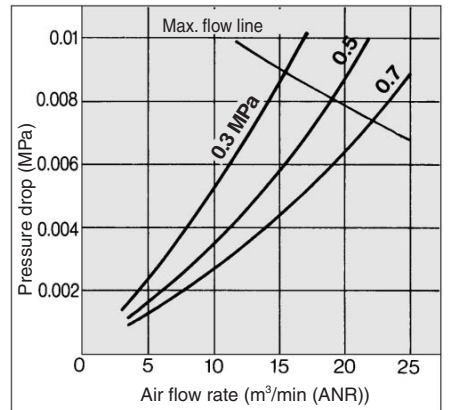
**AFF4B** 1/4B



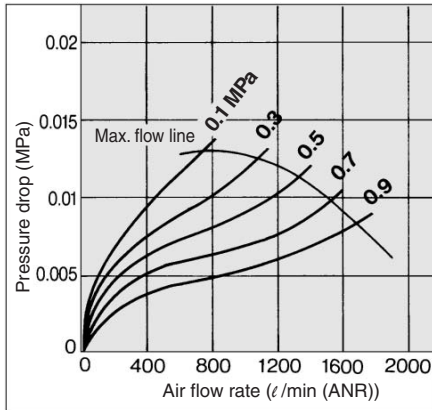
**AFF37B** 1B



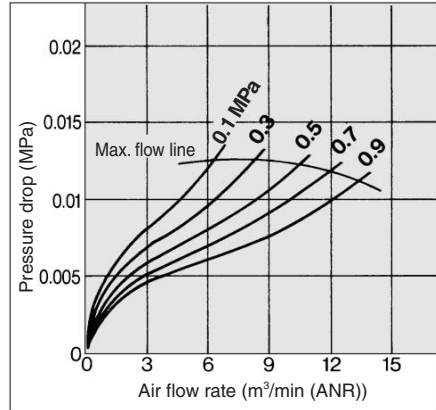
**AFF125A** 3B



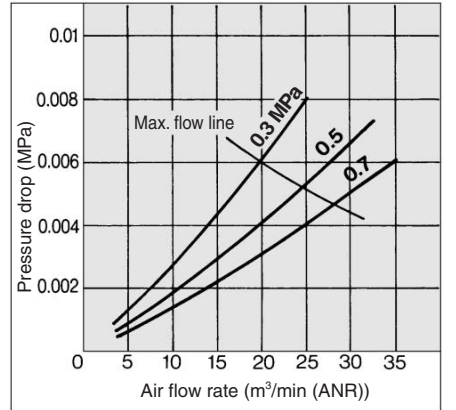
**AFF8B** 3/8B



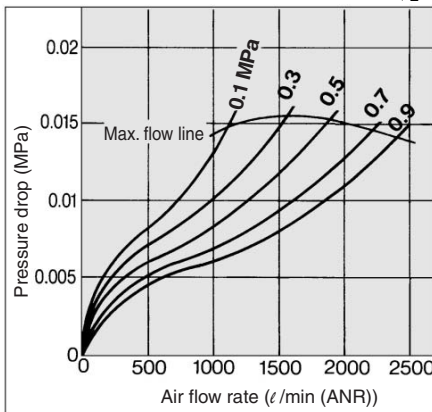
**AFF75B** 1 1/2B



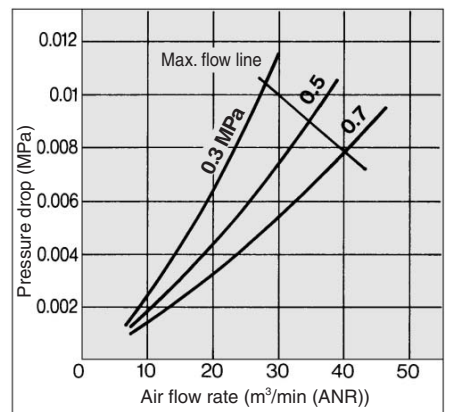
**AFF150A** 4B



**AFF11B** 1/2B



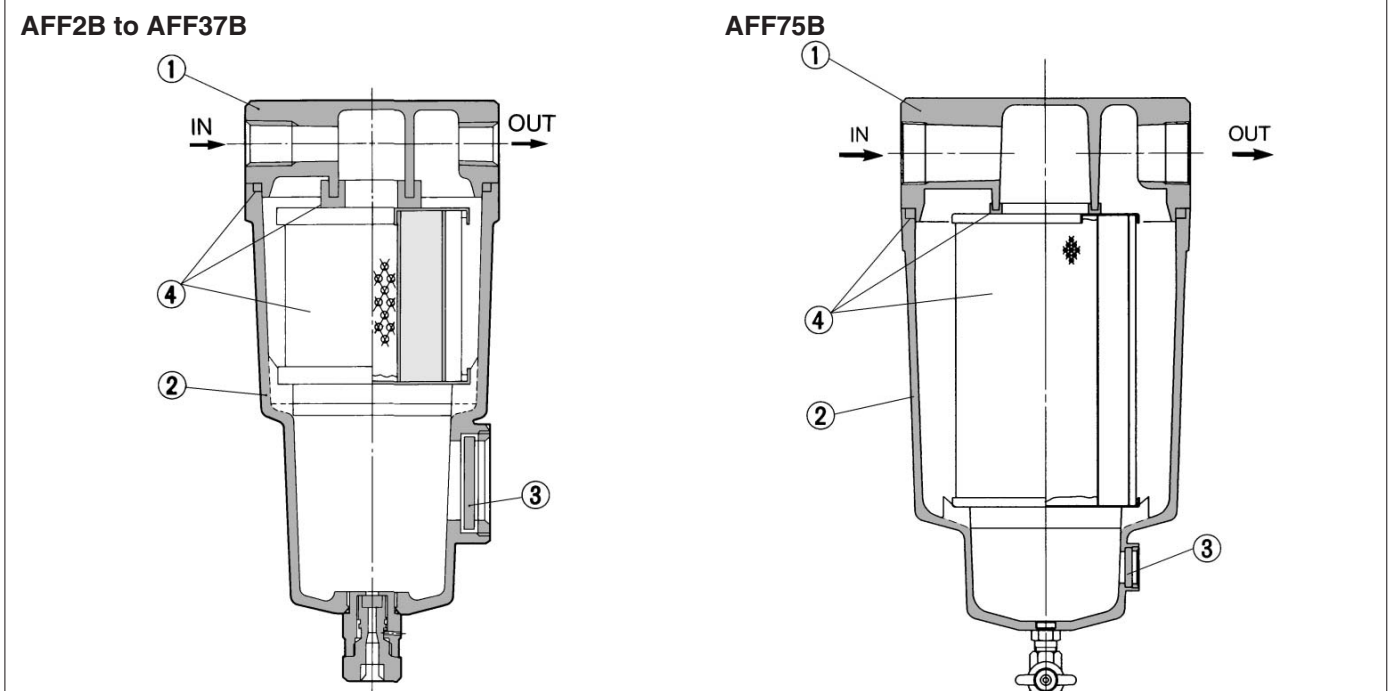
**AFF220A** 4B



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

# Series AFF

## Construction



### Component Parts

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

\* AFF75B is aluminum casted.



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

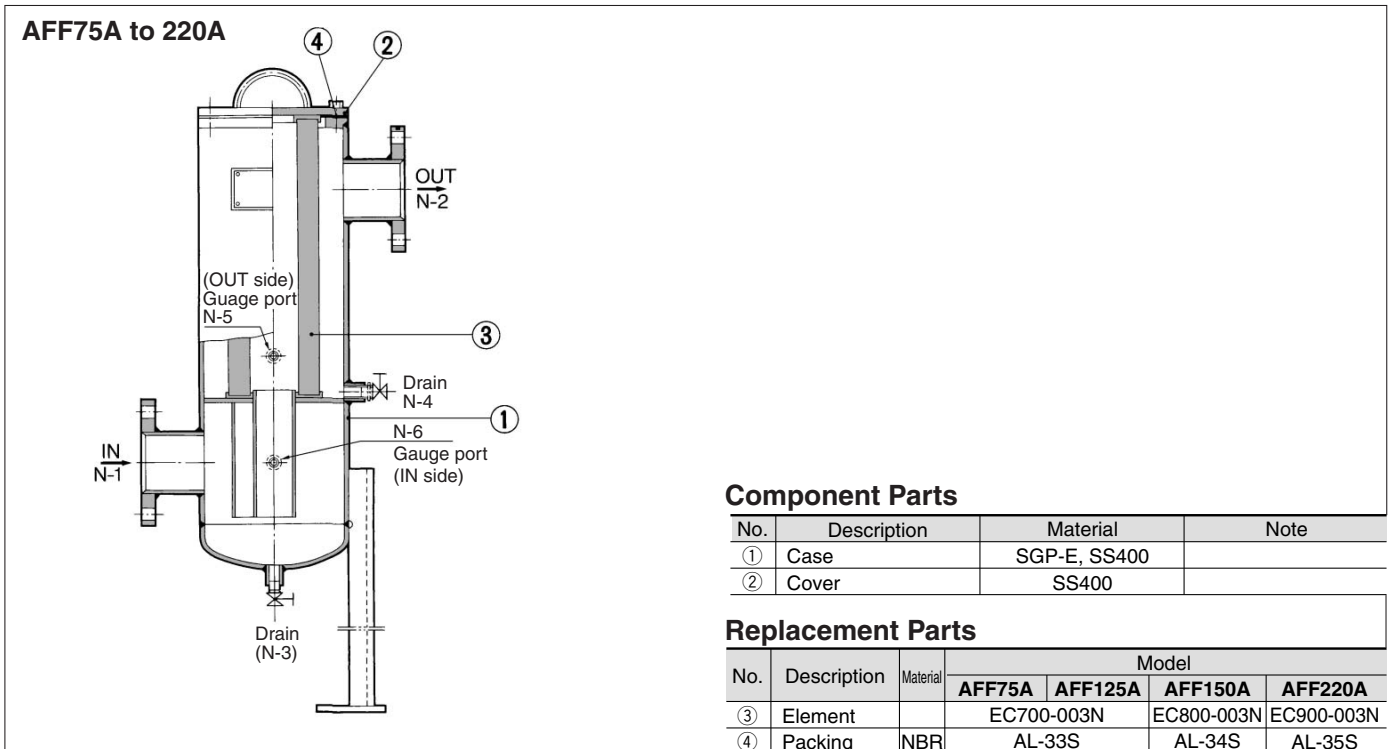


Note: Sight glass is indicated in the figure above for easy understanding of parts, however mounting position is different. Please refer to pages 14-20-13 to 14-20-14 for details.

### Replacement Parts

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

\* Element assembly: With gasket and O-ring



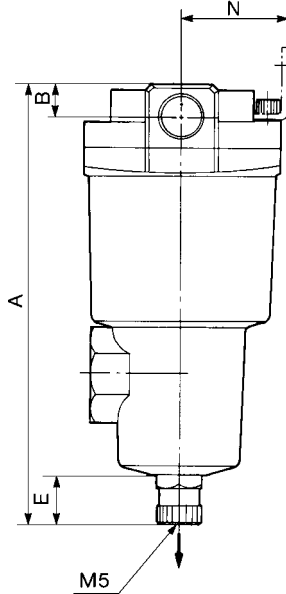
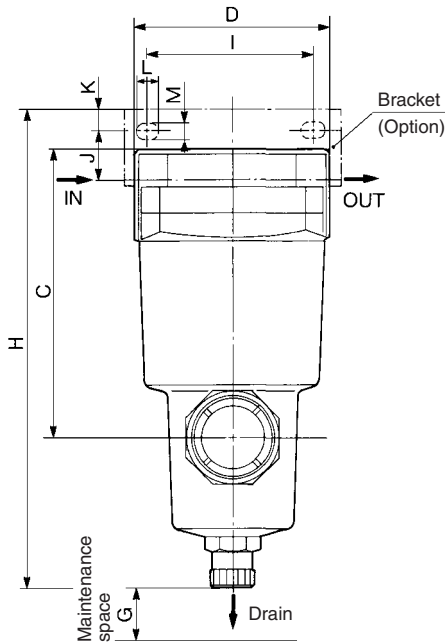
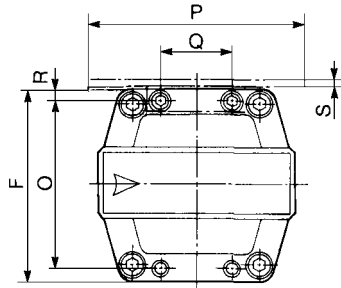
### Component Parts

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

### Replacement Parts

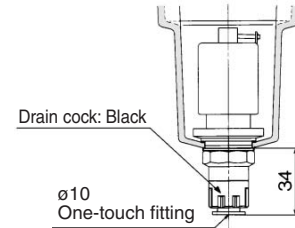
| No. | Description | Material | Model      |            |            |
|-----|-------------|----------|------------|------------|------------|
|     |             |          | AFF75A     | AFF125A    | AFF150A    |
| ③   | Element     |          | EC700-003N | EC800-003N | EC900-003N |
| ④   | Packing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

**AFF2B to AFF37B Dimensions**

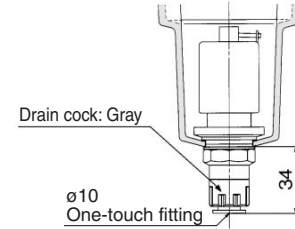


**Accessory**

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



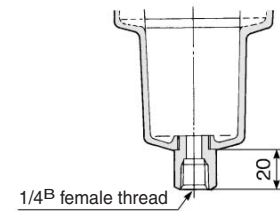
**C: With auto-drain (N.C.)**



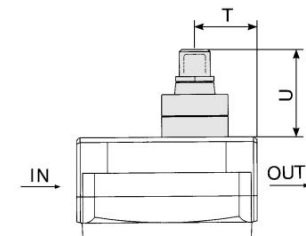
\* N.C. auto-drain not available for AFF37B.

**Option**

**J: With drain guide**



**T: With element service indicator**

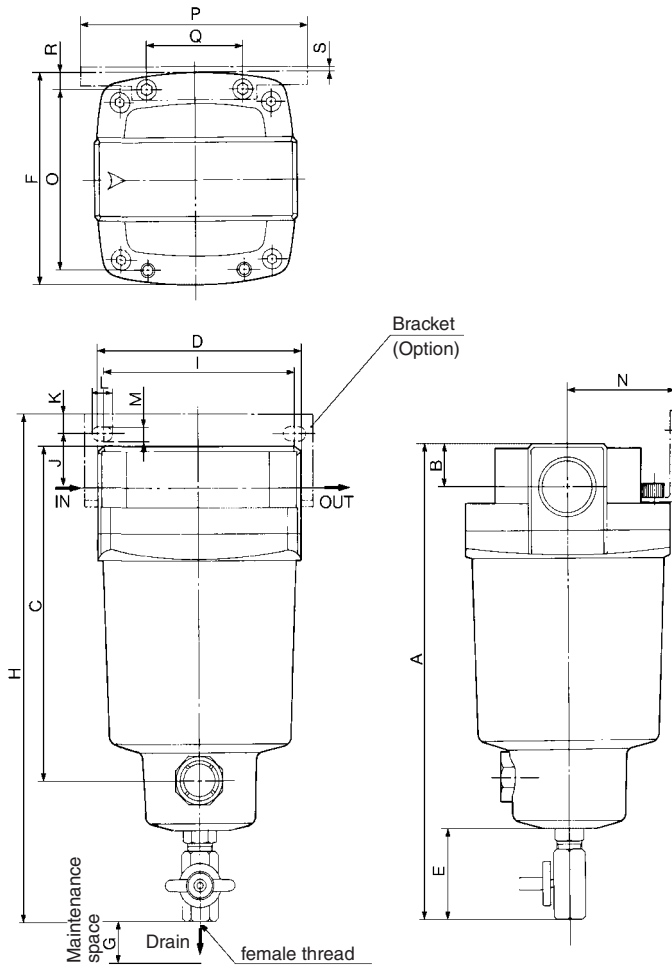


| Model  | Port size<br>(Nominal size B) | A   | B  | C   | D   | E  | F   | G  | Dimensions with mounting bracket |     |    |    |    |     |    |     |     |    |     | Element service indicator |    |    |
|--------|-------------------------------|-----|----|-----|-----|----|-----|----|----------------------------------|-----|----|----|----|-----|----|-----|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

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

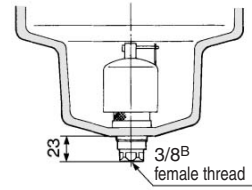
# Series AFF

## AFF75B Dimensions



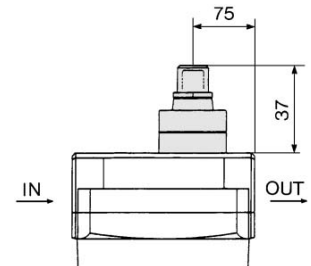
### Accessory

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



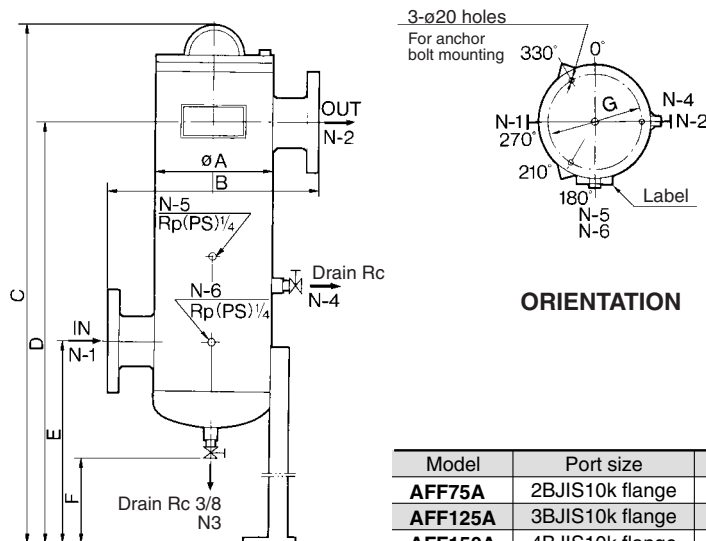
### Option

**T:** With element service indicator



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

## AFF75A to AFF220A/Dimensions



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