



# AF-D Series Specific Product Precautions

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For F.R.L. units precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <https://www.smcworld.com>

## Design / Selection

### Warning

1. The bowl material of the standard air filter is polycarbonate. Do not use in an environment where they are exposed to or come in contact with organic solvents, chemicals, cutting oil, synthetic oil, alkali, and thread lock solutions.

#### Chemical resistance of polycarbonate or nylon bowl

| Type              | Chemical name                                                                                                    | Application examples                                                  | Material      |       |
|-------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------|-------|
|                   |                                                                                                                  |                                                                       | Polycarbonate | Nylon |
| Acid              | Hydrochloric acid<br>Sulfuric acid<br>Phosphoric acid<br>Chromic acid                                            | Acid washing liquid for metals                                        | △             | ×     |
| Alkaline          | Sodium hydroxide (Caustic soda)<br>Potash<br>Calcium hydroxide (Slack lime)<br>Ammonia water<br>Sodium carbonate | Degreasing of metals<br>Industrial salts<br>Water-soluble cutting oil | ×             | ○     |
| Inorganic salts   | Sodium sulfide<br>Potassium nitrate<br>Sodium sulfate                                                            | —                                                                     | ×             | △     |
| Chlorine solvents | Carbon tetrachloride<br>Chloroform<br>Ethylene chloride<br>Methylene chloride                                    | Cleansing liquid for metals<br>Printing ink<br>Dilution               | ×             | △     |
| Aromatic series   | Benzene<br>Toluene<br>Paint thinner                                                                              | Coatings<br>Dry cleaning                                              | ×             | △     |
| Ketone            | Acetone<br>Methyl ethyl ketone<br>Cyclohexane                                                                    | Photographic film<br>Dry cleaning<br>Textile industries               | ×             | ×     |
| Alcohol           | Ethyl alcohol<br>IPA<br>Methyl alcohol                                                                           | Antifreeze<br>Adhesives                                               | △             | ×     |
| Oil               | Gasoline<br>Kerosene                                                                                             | —                                                                     | ×             | ○     |
| Ester             | Phthalic acid dimethyl<br>Phthalic acid diethyl<br>Acetic acid                                                   | Synthetic oil<br>Anti-rust additives                                  | ×             | ○     |
| Ether             | Methyl ether<br>Ethyl ether                                                                                      | Brake oil additives                                                   | ×             | ○     |
| Amino             | Methyl amino                                                                                                     | Cutting oil<br>Brake oil additives<br>Rubber accelerator              | ×             | ×     |
| Others            | Thread-lock fluid<br>Seawater<br>Leak tester                                                                     | —                                                                     | ×             | △     |

○: Essentially safe △: Some effects may occur. ×: Effects will occur.

- \* When the above factors are present, or there is some doubt, use a metal bowl for safety.
- \* The display window material for the semi-standard type with an element service indicator is nylon.

## Maintenance

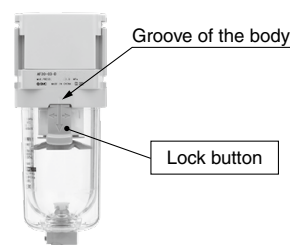
### Warning

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

## Mounting / Adjustment

### Caution

1. When the bowl is installed on the air filter (AF30-D to AF60-D), install them so that the lock button lines up to the groove of the front (or the back) of the body to avoid drop or damage of the bowl.



## Handling

### Caution

1. The element service indicator (Semi-standard: L) is used to check the pressure differential between the IN and OUT sides. When operating at a flow rate with a pressure differential exceeding 0.025 MPa, the element service indicator may operate even when the element is in its initial state.
2. For models with an element service indicator, adjust the flow rate in the direction that increases the flow rate. If the designated flow rate is exceeded, reset the flow rate to zero and readjust it until the designated flow rate is reached.
3. For models with an element service indicator, as the element becomes more clogged, the indicator will display an increasing level of red. Be sure to replace the element before the level of red reaches the top of the indicator.

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Attachments

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