

⚠ PLEASE READ BEFORE USING

⚠ WARNING

1. Read the manual before use to ensure proper operation and maintenance and to prevent product failure.
2. Ensure the flow direction corresponds to the marking on the filter, and keep the drain facing downward.
3. Clean the hose before piping to prevent foreign material.
4. Select the proper hose specification since the flow rate inside the hose is 20–30 m/s.
5. Do not operate the product beyond the working pressure.
6. Install in a location with enough space for maintenance and repair.
7. Fully release the pressure from both the inlet and outlet ports before disassembly to prevent component ejection.

⚠ CAUTION

1. Regularly inspect the bowl and prevent impact. Replace the bowl once the crack occurs.
2. A reduced flow rate indicates decreased filter performance; replace or clean the filter.
3. Some products have an innate check valve feature. Depressurizing the outlet port will not depressurize the inlet port simultaneously. Ensure both ports are fully depressurized when complete pressure release is required.
4. Use an extra mechanical lock with a normally closed pneumatic circuit for safety.
5. Use a water separator before the filter when humidity is high to prevent a decrease in service life.

Operating Environment

1. Do not use the product in environments exposed to corrosive gas, brine, sea breeze, ozone, rain, steam, heat sources, splashing weld slag, or impact.
2. Do not expose the product under sunlight or UV rays.
3. For applications that have a significant impact on personal safety and property, such as those in nuclear energy, railways, aviation, aerospace, maritime, vehicles, medical, food, combustion equipment, amusement facilities, stamping, braking systems, and safety-critical machinery, please contact our company in advance for a feasibility assessment.
4. The plastic bowl will rapidly degrade and break in environments containing certain chemicals. The list below (Refer to next page) shows the chemical resistance of each bowl material.

Applicable type: CP = Filter & Pressure regulator + Lubricator

CT = Filter + Pressure regulator + Lubricator

FR Filter & Pressure regulator F Filter

R Pressure regulator L Lubricator

Filter Cleaning

CP CT FR F

1. A clogged filter will decrease the flow rate and outlet pressure. Clean the filter every few months, depending on operating frequency, to ensure filtering performance.
2. Clean the filter when the pressure difference between the inlet and outlet ports of the filter is greater than 0.07 MPa (0.7 kgf/cm²).
3. Use clean compressed air to blow the filter from inside to outside and keep it away from your eyes.

Drain Timing

CP CT FR F

1. Push the drain valve upward when the water level reaches the bowl's drain limit. Water separation performance will decrease if the water level is too high.
2. Products with an auto drainer will empty the bowl automatically when the circuit is depressurized to less than 0.05 MPa (0.5 kgf/cm²).

Pressure Setting

CP CT FR R

1. Pull the knob to unlock it for pressure adjustment.
2. Turn the knob clockwise to increase the outlet pressure; turn it counterclockwise to decrease it.
3. Slowly increase the pressure to the desired value. Repeat this operation if the pressure exceeds the desired value to ensure proper operation of the regulator.

Oil Feeding Setting

CP CT L

1. Use ISO VG32 lubricating oil for the product and refill it when the oil level falls below the minimum level.
2. The needle valve on the lubricator can adjust the oil feeding rate.
3. The oil feeding rate is proportional to the flow rate. Keep this in mind when making adjustments.

Bowl Installation

CP CT FR F L

1. Disassembly: Fully depressurize both the inlet and outlet ports, push the bowl upward, turn it counterclockwise 45 degrees, and then pull it down.
2. Assembly: Ensure the O-ring is properly installed, push the bowl upward, and then turn it clockwise 45 degrees.

Troubleshooting

CP CT FR R

1. Fail to Pressurize: Check the piping of both the inlet and outlet ports. Air will be released through the exhaust port if piped in reverse. If the piping is correct, the piston may be displaced. Adjust the knob to depressurize, then repressurize. If there is still a leak, please contact our sales department.
2. Fail to Depressurize: The exhaust valve may be clogged. Disassemble and clean it.
3. Fail to Stabilize the Pressure: The valve may be damaged or leaking; please contact our sales department.

Component Cleaning

1. Clean metal parts with rosin oil or trichloroethylene.
2. Clean non-metal parts with light mineral oil or a neutral detergent.
3. Fully remove the cleaning solvent or detergent before installation.

Others

1. Store this manual for future reference.
2. Contact our sales department for component replacement.
3. Recycle waste according to local regulations.
4. Clean and store the product if it will not be used for a long time. Keep it in a dry, cool location away from sunlight.

○: Good △: Conditional ×: Bad

Chemical type	Chemical	Bowl Material		
		Polycarbonate	Nylon	Aluminum
Strong Acids	Hydrochloric Acid Sulfuric Acid Nitric Acid Sodium Sulfide	×	×	×
Weak Acids	Phosphoric Acid Potassium Dichromate	×	×	△
Strong Alkali	Sodium Hydroxide Potassium Hydroxide Slaked Lime	×	×	×
Weak Alkali	Ammonia Sodium Carbonate	×	△	△
Inorganic Salts	Sodium Nitrate Sodium Sulfate	×	○	○
Chlorinated Solvents	Carbon Tetrachloride Chloroform Ethylene Chloride Dichloromethane	×	△	○
Petroleum	Gasoline Kerosene	×	○	○
Aromatics	Benzene Toluene Xylene Ethylbenzene Styrene	×	△	○
Alcohols	Wood Alcohol Methanol Ethanol Benzyl Alcohol	×	△	○
Phenols	Carbolic Acid Cresol	×	×	△
Ethers	Methyl Ether Ethyl Ether	×	○	○
Ketones	Acetone Butanone	×	△	○
Esters	Dimethyl Phthalate Diethyl Phthalate Dioctyl Phthalate Dibutyl Phthalate	×	○	○
Oxygen-containing Acids	Glycolic Acid Lactic Acid Malic Acid Citric Acid Tartaric Acid	×	×	△
Nitro Compounds	Nitromethane Nitroethane Nitroethylene Nitrobenzene	×	△	○
Amines	Methylamine Dimethylamine Ethylamine Aniline	×	△	△
Nitriles	Acetonitrile Acrylonitrile Cyanobenzene	×	△	○