



To Use This Product Safely

Please read before use. Refer to Intro 27 for general precautions for pneumatic components. Although the above general catalog states that products are not applicable for equipment or applications with direct contact with beverages/foodstuffs, the FP2 Series products can be used in such applications as long as they are within the range of the product specifications.

Individual Precautions : Antibacterial/Bacteria Removing filter

At Design / Selection

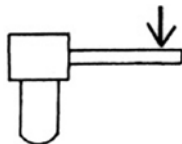
WARNING

- The antibacterial filter has an antibacterial effect on bacteria attached to internal filter elements, suppressing bacteria growth. There is no sterilization effect on the fluid itself. Antibacterial Activity Value showing anti-bacterial effect is an actual value from CKD's prescribed conditions.
- The Bacteria Removing Filter removes and reduces the bacteria in the Operating fluid, but it does not kill all bacteria. Viruses etc. cannot be removed. LRV, which represents bacteria-removing effect, is an actual value from CKD's prescribed conditions.
- This product is designed for industrial use. Do not use in any equipment or circuit that concerns human life.
- This product tolerates a small amount of leakage which does not affect performance.
- For use with nitrogen gas (N₂) or carbon dioxide (CO₂), provide sufficient ventilation.
- This filter traps foreign materials and bacteria in the Operating fluid and provides clean Operating fluid to the secondary side. Anti-bacterial and bacteria-removing functions are not added to the Operating fluid itself.
- It cannot be used in environments containing sodium hypochlorite, synthetic oil, organic solvents, chemicals, cutting oil, screw locking agent, leakage detection solutions, or hot water, etc., or where these substances may come in contact with the product. Refer to P. 274 for details on plastic bowl and transparent case chemical resistance.

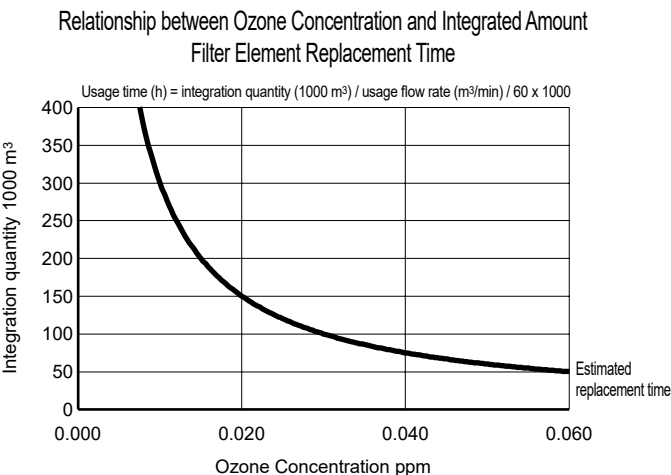
■ Piping Load Torque

Avoid cantilever fixed piping, as excessive force can easily cause damage.
[Combination, module-type]
Do not apply piping load or torque to the body and piping parts.

Series Name	SFC3□□	SFC4□□	SFC8□□
Maximum Torque N·m	50	50	100



- Use this product after properly checking compatibility of the material with its use conditions and environment.
- Prevent the generated ozone from passing through the filter. Otherwise the filter element may be degraded. Take care especially when using an ozone generator (e.g., ionizer) together.
 - ① Do not install upstream of the filter.
 - ② When installing downstream of the filter, stop air while static electricity is neutralized since generated ozone may flow back.
- Do not use in locations where ultraviolet rays are directly irradiated.
- If the hollow fiber membrane in the bacteria removing filter suffers oxidative degradation from ozone or ultraviolet in the fluid, it may be damaged and allow flow over to the secondary side. Implement periodic inspections and exchange. Refer to the figure (graph) below for the replacement timing guide.



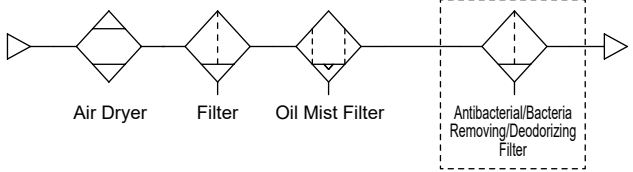
Antibacterial/Bacteria Removing filter

Individual Precautions

- Perform a periodic inspection at least once every six months to check for any cracks, scratches, and other damage to the plastic bowl and transparent housing. If cracks, scratches or other deterioration are found, they may cause damage. Please replace the bowl or the product with a new one.
- Check the plastic bowl periodically for contamination.
 - If parts are heavily contaminated or if transparency has decreased, replace with a new bowl.
 - Use water and household detergent to wash parts. Rinse them out well with clean water afterward.
- Removing the bowl
When removing the bowl, stop the fluid flow, completely discharge the pressure inside the bowl, and confirm that there is no residual pressure.
- Remove the Air Filters drain. If drainage flows into the secondary side, it may cause equipment malfunction.
- Do not disinfect or clean using alcohol. It may deteriorate or damage the plastic part.

CAUTION

- Check the Operating circuit and Operating fluid.
To prevent drop in filter performance, install the dryer, Air Filters and oil mist filter on the primary side, and remove water or oil.



- Installation order for anti-bacterial/bacteria-removing/odor removing filter
We recommend the use of the bacteria-removing unit as the final filter before the compressed air/gas contact foodstuffs.



- Do not exceed maximum Operating or differential pressure.
Not observing this could damage the product or element.
- Do not flow over the max. processing flow rate.
Doing so may degrade the filtration accuracy and damage the element.
- This device cannot be used as an absolute filter (absolute degree of filtration).
- Do not use where the IN/OUT pressure differential exceeds 0.1 MPa.
A sudden supply of fluid to the filter (such as air blow by releasing the secondary side to the atmosphere, etc.) may reduce the removal efficiency. In this case, install a restriction valve on the filter's IN side to keep the pressure difference to 0.1 MPa or less. Consult with CKD about attaching differential pressure gauge GA400.
- High moisture levels
Install the air dryer and drain separator before the anti-bacterial/bacteria-removing filter. If there is a lot of moisture from the compressor, hot and highly humid air could shorten the device's life or result in corrosion.
- Water-lubricated compressor circuit
Be careful not to mix chlorine-based substances into the compressed air.
- The odor removing filter uses activated carbon to apply suction to oil vapor. Be sure to install an oil mist filter (M Series M type) on the primary side, and remove oil mist in advance.
- The odor removing filter uses suction to remove the oil vapor in compressed air (nitrogen gas, carbon dioxide). Activated carbon suction is not equally effective with all substances, so that it will not completely eliminate all odors.
- The odor removing filter does not have anti-bacterial or bacteria-removing functions.

For precautions regarding mounting, installation, adjustment, operation, and maintenance, please refer to the CKD Component Products site (<https://www.ckd.co.jp/kiki/en/>) → 'model No.' → Instruction Manual.

Antibacterial/Bacteria Removing filter

About Chemical Resistance of Plastics

-  **WARNING**
- The chemical resistance of plastic parts is shown below.
 - Avoid using products in an atmosphere where these chemicals are contained in Operating fluid or atmosphere, or where they could adhere to parts.
 - Use in the above state could lead to bowl damage and accidents.

Chemical Resistance of Plastic Bowl and Transparent Housing

Please consult us when using in places where the following chemical atmospheres exist. Also, since some inspection liquids, sealants, and adhesives contain the following chemical components, please confirm when selecting.

Type of Chemical	Classification of Chemical	Main Products of Chemical	General Usage Examples	Nylon
Inorganic Chemicals	Acid	Sodium hypochlorite, hydrochloric acid, sulfuric acid, hydrofluoric acid, phosphoric acid, chromic acid, etc.	Sterilization, metal pickling liquid, acidic degreasing liquid film treatment liquid, etc.	x
	Alkali	Alkali substances such as caustic soda, caustic potash, calcium hydroxide, aqueous ammonia, and sodium carbonate	Alkaline degreasing liquid for metals Water-soluble cutting fluid, leak detection agent	○
	Inorganic Salt	Sodium sulfide, sodium nitrate, potassium dichromate, sodium sulfate, etc.		○
Organic Chemicals	Aromatic Hydrocarbons	Benzene, toluene, xylene, ethylbenzene, styrene, etc.	Contained in paint thinner (benzene, toluene, xylene)	x
	Chlorinated Aliphatic Hydrocarbon	Methyl chloride, ethylene chloride, methylene chloride, acetylene chloride, chloroform, trichlorethylene, perchlorethylene, carbon tetrachloride	Organic solvent-based cleaning liquid for metals (trichlorethylene, perchlorethylene, carbon tetrachloride, etc.)	○
	Chlorinated Aromatic Hydrocarbon	Chlorobenzene, dichlorobenzene, hexachlorobenzene (B.H.C), etc.	Pesticide	○
	Petroleum Component	Solvent naphtha, gasoline, kerosene		○
	Alcohol	Methyl alcohol, ethyl alcohol, cyclohexanol, benzyl alcohol	Used as antifreeze agent Leak detection agent	x
	Phenol	Carbolic acid, cresol, naphthol, etc.	Disinfectant	x
	Ether	Methyl ether, methyl ethyl ether, ethyl ether	Brake fluid additive	○
	Ketone	Acetone, methyl ethyl ketone, cyclohexanone, acetophenone, etc.		x
	Carboxylic Acid	Formic acid, acetic acid, butyric acid, acrylic acid, oxalic acid, phthalic acid, etc.	Dye/Oxalic acid is aluminum treatment agent. Phthalic acid is used as paint base material. Used as leak detection agent.	x
	Ester	Dimethyl phthalate (DMP), diethyl phthalate (DEP), dibutyl phthalate (DBP), dioctyl phthalate (DOP)	Used as additive for lubricating oil, synthetic oil, rust preventive oil, plasticizer for synthetic resin	○
	Oxyacid	Glycolic acid, lactic acid, malic acid, citric acid, tartaric acid		x
	Nitro Compounds	Nitromethane, nitroethane, nitroethylene, nitrobenzene, etc.		○
	Amine	Methylamine, dimethylamine, ethylamine, aniline, acetanilide, etc.	Brake fluid additive	x
	Nitrile	Acetonitrile, acrylonitrile, benzonitrile, acetoisonitrile, etc.	Raw material for nitrile rubber	○

MEMO

F.R.L.

Filter Regulator

Filter

Regulator

Lubricator

Drain Separator

Mechanical Pressure SW

Residual Pressure Exhaust Valve

Slow Start Valve

Antibacterial/Bacteria Removing Filter

Ozone FR

Silicone/OzoneRemover

Flame Resistant FR

Oil-free Regulator

Medium Pressure FR

No copper/PTFEV Specification

Air Unit Equipment

Adapter Joiner

Pressure Gauge

Compact F.R.L.

Large F.R.L.

Precision Regulator

Clean FR

Electro-Pneumatic Regulator

Air Booster

Ending