Safety precautions

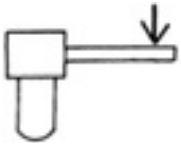
Be sure to read this section before use.

⚠ WARNING

■ Design/selection

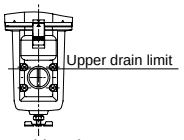
- This product is for industrial use. Do not use for medical purposes, or in any equipment or circuit that concerns human life.
- The plastic bowl is made of polycarbonate or nylon. It cannot be used in environments containing synthetic oil, organic solvents, chemicals, coolant, screw locking agent, leak detection solutions, or hot water, etc., or where these substances may come in contact with the product.
  Refer to the following page for details on plastic bowl chemical resistance.
- Piping load torque
  Avoid applying piping load or torque to the body or pipes.

Series	FX1004	FX1011	FX1037
Max. torque N·m	50	50	100



■ Use/maintenance

- Perform periodic inspection once every six months or less to check for any cracks, scratches, or other damage to the plastic bowl. Replace the bowl with a new plastic or metal one if you find any damage.
- Check the plastic bowl periodically for contamination.
  · If it is dirty or if transparency has decreased, replace with a new bowl.
  · Wash with diluted household detergent in order to avoid damage, and then rinse well with pure water.
- Removing the bowl
  Stop the compressed air supply. Release the pressure in the bowls completely and make sure that there is no residual pressure before removing the bowls.
- Drain so that the drain separator moisture does not accumulate beyond the upper limit.
  Components could malfunction if moisture flows into the secondary side.



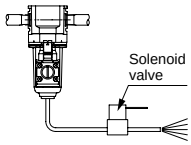
Metal bowl

· The resin bowl must not be filled above the points marked "Drain upper limit" or "MAX LEVEL" on the bowl guard.

⚠ CAUTION

■ Design/selection

- Water-lubricated compressor circuit
  Take measures to prevent chlorine-based substances from entering the compressed air.
- Use the auto-drain under the working conditions below. Otherwise, malfunction may occur.
  NO auto-drain (exhaust when not pressurized): For "F"
  · Use a compressor with a capacity of 0.75 kW {90 l/min [ANR]} or more.
  · Set the working pressure to 0.1 MPa or more. (Air is purged with initial drainage until pressure reaches 0.1 MPa.)
  NC auto-drain (no exhaust when not pressurized) For "F1"
  · A compressor with a capacity of 0.75 kW or less can also be used.
  · Set the working pressure to 0.15 MPa or more.
- The auto-drain may not work correctly if a large amount of drain enters. If there is a large amount of drain, select the bowl option "M" and perform regular drainage using a solenoid valve or the like from the drain pipe.

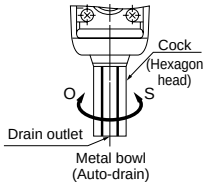


■ Mounting, installation and adjustment

- Avoid installing this product where it is subject to direct ultraviolet.
- Flush and clean the pipes.
  Dirt or foreign matter remaining in the piping will deteriorate product performance.
- Make sure that no foreign matter enters the pipes when connecting the pipes and fittings.
  When screwing in piping or fittings, check that swarf from port threads or sealant does not get inside. Dirt or foreign matter remaining in the piping will deteriorate product performance.
- Using the drain separator correctly
  1. Confirm the direction of the arrow indicating the flow direction before connecting, and make sure that the flow direction is correct when piping. If the flow direction is incorrect, the drain cannot be isolated. (It will cause the drain to flow out from the secondary side.)
  2. Install the case downward and vertically.Otherwise, drain discharge failure could result.
  3. Avoid use of the auto-drain where vibration is present, as this could cause faults and malfunctions.
- Pipe auto-drain piping as follows:
  Otherwise, malfunction may occur.
  Use an inner diameter of ø5.7 or more and piping of 5 m or more for the drain discharge section. Do not route it vertically.
  Do not route it vertically. Pipe so that no lateral load is applied on the bowl.
  When you tighten a fitting into an Rc1/4 female thread, hold the hexagon part of the cock.
- Piping screw-in torque
  Make sure that excessive torque is not applied on the body and piping when piping.

Series	FX1004	FX1011	FX1037
Max. torque N·m	30	30	70

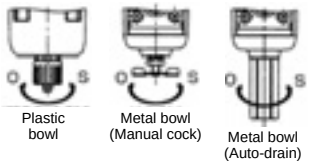
- Drain piping
  · The drain piping for the plastic bowl has a barbed nipple, and can be directly installed; confirm that the drain cock is closed before inserting the tube. Do not route it vertically. Pipe so that no lateral load is applied on the bowl. Do not fix the tube connected to the drain outlet with a lateral load applied. If drainage is performed with a lateral load applied, external leakage may occur.
  Contact CKD when attaching a separate valve to the tube tip that is inserted to the drain outlet to control drainage.
- Drain cock tightening torque
  · The maximum tightening torque of the drain cock of the bowl is 0.5 N·m.
- Drain piping of metal bowl with auto-drain
  · When tightening a fitting into the drain outlet female thread, hold the hexagon part of the cock.When using the metal bowl with auto-drain, if the drain is piped with a tightening fitting, manual operation is not possible.



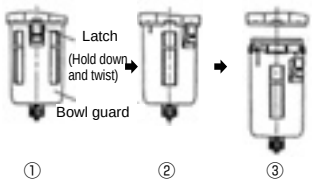
■ Use/maintenance

- Do not disassemble or modify the product.
- Read the instructions and precautions included with the product before use or maintenance.
  · Drainage starts when the cock is turned in the O direction, and the discharge stops when turned in the S direction.
  Tighten by hand in the S direction.
  · With auto-drain, drainage is discharged automatically when it accumulates. Drainage can also be discharged manually.

Drainage method



Removing the resin bowl



Removing the metal bowl