



KQG2 Series

Specific Product Precautions

Be sure to read this before handling the products.

Refer to back page 50 for Safety Instructions and pages 13 to 17 for Fittings and Tubing Precautions.

Selection

⚠ Caution

1. The surge pressure must be under the maximum operating pressure. If the surge pressure exceeds the maximum operating pressure, it will result in damage to fittings and tubing or the tubing may result in being fallen out.
2. If using a fluorescesin tubing in an environment where the fluid temperature changes drastically, it is recommended to use an inner sleeve. Otherwise, air leakage may occur or the tube may release from fitting due to deformation of the tubing.
3. The particle generation of the KQG2 series depends on the operating conditions and operating environment. If you are concerned about the effects on machinery and equipment, check the particle generation with your machine before use.

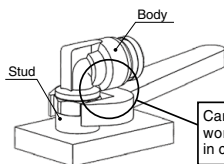
The components of the KQG2 series may slide due to changes in the internal pressure, which may generate particles. When using male elbow, male branch tee, and extended male elbow fittings, particles may be generated by rotation for positioning after connecting.

Mounting

⚠ Caution

1. When performing the piping work, turn the tightening tool in the horizontal direction to the hex. across flats of the stud so that any moment is not applied to the body.

If the tool is in contact with the body, this may cause the stud to come off.



2. The union elbow, union tee, union "Y", different diameter tee and different diameter union "Y" should be fixed through the mounting hole.

Otherwise, air leakage or breaking can occur due to a pulling force or moment load created by the product's weight.

3. The elbow union, branch tee, and long elbow union can be turned for positioning after connecting, but they cannot be used while turning them.

Doing so may cause worn out metallic particles to enter the fluid or the fitting to break.

4. If the connection tube oscillates or turns, do not use this product.

Doing so may cause the fitting to break. In particular, for the product with the stud, this may cause the stud to come off.

Operating Environment

⚠ Warning

1. Avoid installing and using fittings inside a food zone.

Not installable

Food zone An environment where food which will be sold as merchandise, directly touches the fitting components.

Installable

Splash zone An environment where food which will not be sold as merchandise, directly touches the fitting components.

Non-food zone An environment where there is no contact with food.

Installation and Removal of Tubing

⚠ Caution

1. Installation of tubing

1) Grease is not used for the KQG2 series, therefore a greater insertion force is required when the tube is installed. In particular, polyurethane tubing may fold when inserted due to its softness. Hold the end of the tubing, and insert it all the way in slowly and securely. Refer to dimension "M" in the dimension drawings for guidance on the insertion depth of tube.

2. Removal of tubing

1) For tubing used at a high temperature or for an extended period of time, there is a possibility that it will not fit into a One-touch fitting again due to an enlarged O.D. Dispose of the tubing and replace it with a new one.

Proper Tightening Torque of Fittings

⚠ Caution

1. Tighten fittings with sealant using the proper tightening torques in the table below. As a rule, they should be tightened 2 to 3 turns with a tool after first tightening by hand.

If tightened using a torque exceeding the proper torque level, this may cause the fitting to break.

In particular, for the product with the stud, the stud may come off.

Connection thread size	Proper tightening torque N·m
NPT, R1/8	3 to 5
NPT, R1/4	8 to 12
NPT, R3/8	15 to 20
NPT, R1/2	20 to 25

Stainless steel

Metal exists in nature as ore (like oxide or sulfide). This means that oxide or sulfide is more stable than pure metal. Accordingly, metallic material chemically oxidizes (metallic constituent becomes ion and melts out). It corrodes in the natural environment. Even though corrosion of metal easily occurs in an environment where oxidizing tendency is stronger, some kinds of metal have a characteristic for which corrosion never happens if the level of oxidizing goes higher than a specific point. In such a case, it is called "metal in passive state".

Stainless steel has corrosion resistance because of a thin coat of passive state on its surface. However, there does not exist stainless steel with absolute corrosion resistance; therefore, many types of stainless steel have been developed for improved corrosion resistance performance.