

KOGANEI

Auxiliary

QUICK FITTINGS STANDARD TYPE

INSTRUCTION MANUAL Ver.1.0

Safety Precautions (Quick Fittings Standard Type)

The following is a safety precaution to Quick Fittings Standard Type. For other safety precautions, be sure to read the precautions on p.49.

Warning

- With the exception of the quick fittings rotary type, do not use any quick fittings in locations where thread portions or tubes are subject to swing or rotation. The swing or rotation could result in damage to the fitting body.

Handling Instructions and Precautions

● Mounting

Precautions for mounting the body

1. To mount the body, use a suitable tool to tighten it to the outer or inner hexagonal section of the fitting.
2. When tightening threads, tighten to the recommended tightening torque shown in the table below. Tightening to more than the recommended torque could result in broken threads or air leaks due to deformed gaskets. Tightening to less than the recommended torque could lead to loose threads or air leaks.
3. For fittings with fixed piping direction, tighten to the desired piping direction, and then adjust so that it falls within the range of the body tightening torque.

Recommended tightening torque, color of sealant, and gasket material

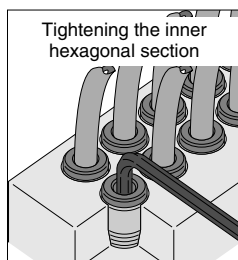
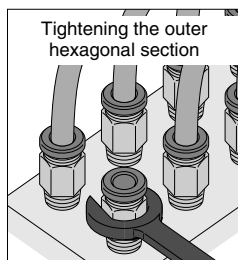
Thread type	Thread	Tightening torque	Sealant color	Gasket material
Metric thread	M3×0.5	0.7N·m [6.2in·lbf]	—	SUS304 NBR
	M5×0.8	1.0~1.5N·m [8.9~13.3in·lbf]		
	M6×1	1.8~2.3N·m [15.9~20.4in·lbf]		
Taper pipe thread	R1/8	7~9N·m [62~80in·lbf]	White	—
	R1/4	12~14N·m [106~124in·lbf]		
	R3/8	22~24N·m [195~212in·lbf]		
	R1/2	28~30N·m [248~266in·lbf]		

Precautions for disconnecting the body

1. To disconnect the body, use a suitable tool to loosen it from the outer or inner hexagonal section of the body.
2. Clean off the sealant coating on the thread of the removed mating part. The coated sealant could enter other relating parts, and cause breakdowns.

Method for tightening screws

For tightening screws, use either a wrench or an impact wrench on outer hexagonal sections, and for inner hexagonal sections, use an Allen wrench (enables to reduce the space between fittings).

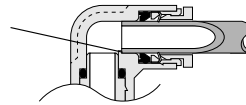


Caution: While the quick fitting sealant can be reused a number of times, the thread on the mating part may also be adhered with sealant. Always clean out the inside of the device's female thread.

● Tube connection and disconnection Precautions for connecting the tube

1. Check that the cut section of the tube has been cut at straight angle, that the outer surface of the tube is not scratched, and that the tube has not become oval shaped.
2. When connecting a tube, failure to insert the tube all the way to the end could result in air leaks.

Tube end



3. After connection, pull the tube to check that it will not disconnect.

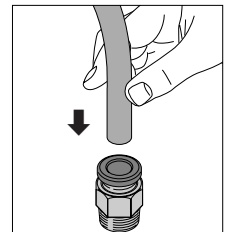
Precautions for disconnecting the tube

1. Before disconnecting a tube, check that the pressure inside the tube is down to zero.
2. Push the release ring evenly all the way to the end, and then pull the tube out. An insufficient push could make it impossible to pull the tube out, or could scratch the tube, leaving scratched tube material inside the fitting.

Tube connection and disconnection method

1. Tube connection

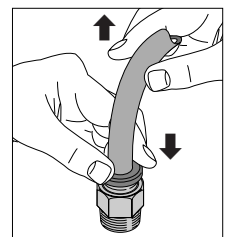
The Quick Fitting Standard Type is equipped with a lock claw that holds the tube in place when it has been pushed all the way to the end, and with an elastic sleeve for sealing the tube periphery.



2. Tube disconnection

To disconnect the tube, first push on the release ring, releasing the lock claw, and then pull the tube out.

Always stop the air supply before removing the tube.



For cases where tight or cramped piping spaces hinder tube removal operations, a special tool is available. Consult us for details.

Special tool for tube removal

For ϕ 3 [0.118in.], ϕ 4 [0.157in.] and ϕ 6 [0.236in.] tubes
Order code: **UJ-1**



For ϕ 6 [0.236in.], ϕ 8 [0.315in.],
 ϕ 10 [0.394in.] and ϕ 12 [0.427in.] tubes
Order code: **UJ-2**



Handling Instructions and Precautions

● Usable tubes

Either nylon or urethane tubes can be used. The tube outer diameter accuracy should be, for nylon tubes, within $\pm 0.1\text{mm}$ [$\pm 0.004\text{in.}$] of the nominal dimensions, and for urethane tubes, within $\pm 0.15\text{mm}$ [$\pm 0.006\text{in.}$] of the nominal dimensions, while the ovalness (difference between long diameter and short diameter) should be within 0.2mm [0.008in.].

- Cautions:**
1. Use tubes with no visible scratches on the outer surface.
If a scratch is made during repeated use, cut off the scratched portion.
 2. Do not bend or twist the tube too much near the connection to the fitting. It could result in air leaks. The minimum bending radius for nylon tubes is as shown in the table below.

mm [in.]	
Tube size	Minimum bending radius
ϕ 4 [0.157]	20 [0.8]
ϕ 6 [0.236]	30 [1.2]
ϕ 8 [0.315]	50 [2.0]
ϕ 10 [0.394]	80 [3.1]
ϕ 12 [0.472]	150 [5.9]
ϕ 16 [0.630]	500 [20]