

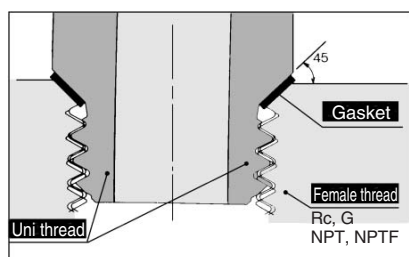
Uni One-touch Fittings

Series KQ2

Applicable Tubing: Metric Size

Connection Thread: Rc, G, NPT, NPTF

New-stand male thread for piping that reduces the screw-in time by 1/3.

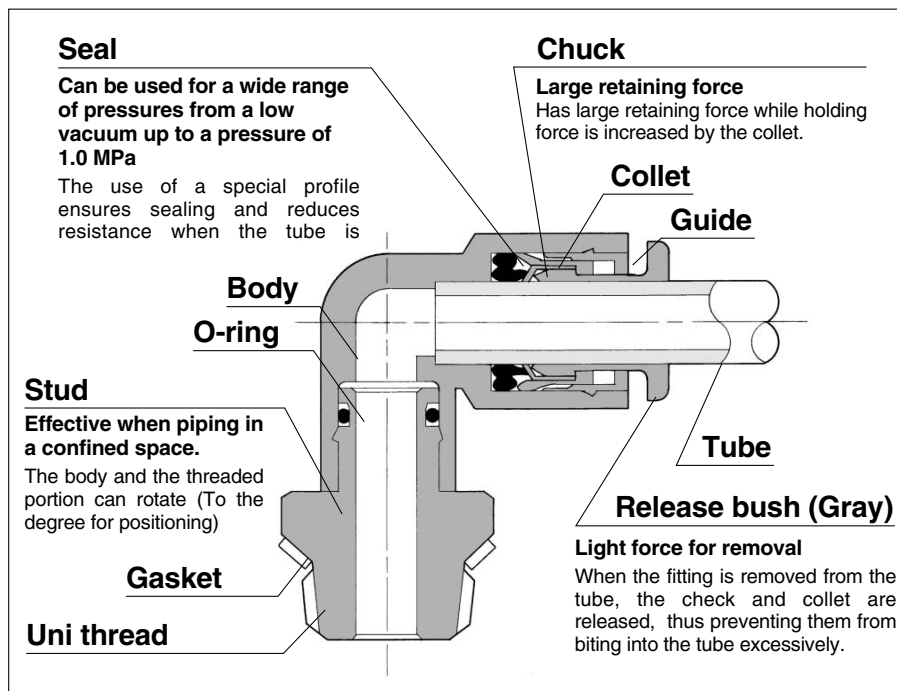


Uni thread ridge shape

A gasket made of a stainless sheet covered with laminated NBR on both sides is seated on the chamfer of a female thread for a perfect sealing construction irrespective of the difference in thread diameters due to the difference in the types of female threads, variation in tolerance, or difference in the size of chamfer. (It is applicable to any female thread with an ordinary chamfer.)

A ridge shape has been created as a Uni thread for common applications for Rc, G, NPT and NPTF.

The male thread for piping drastically cuts piping man-hours.



Applicable Tubing

Tubing material	Nylon, Soft nylon, Polyurethane
Tubing O.D.	ø4, ø6, ø8, ø10, ø12, ø16

Product's Color

Series	Body	Release button
Series KQ2	White	Light gray
Series KQ	Black	Blue

Specifications


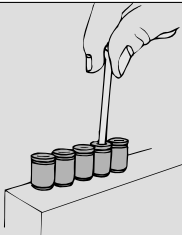

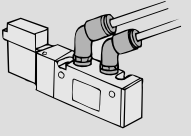





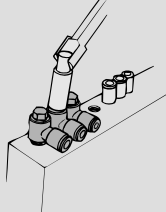

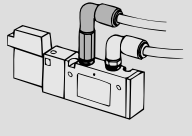

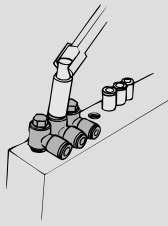

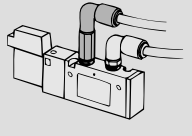

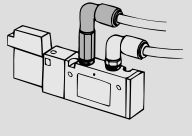

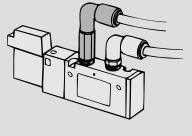
Fluid	Air/Water ^{Note)}
Maximum operating pressure	1.0 MPa
Operating vacuum pressure	-100 kPa
Proof pressure	3.0 MPa
Ambient and fluid temperature	-5 to 60°C, Water: 0 to 40°C (No freezing)



Note) Applicable for general industrial water. Please consult with SMC if using for other kinds of fluid. Also, the surge pressure must be under the maximum operating pressure.

Principal Parts Material

Body	C3604BD, PBT
Stud	C3604BD (Thread portion)
Chuck	Stainless steel 304
Guide	Stainless steel 304, C3604BD, POM
Collet, Release button	POM
Seal, O-ring	NBR
Gasket	Stainless steel 304, NBR

Model	
Hex. socket head male connector KQ2S P. 36 	Internal hex. allows thread connection by using an allen wrench for confined spaces. 
45° male elbow KQ2K P. 36 	Use to pipe in 45° direction from female thread. Model in-between of male connector and male elbow. 
Male connector KQ2H P. 34 	Use to pipe in the same direction from female thread. Most general style. 
Branch "Y" KQ2U P. 35 	Use to branch line in the same direction from female thread. 
Male elbow KQ2L P. 34 	Use to pipe at right angles to female thread. Most general style. 
Male run tee KQ2Y P. 35 	Use to branch line in the same direction from female thread and in 90° direction. 
Universal male elbow KQ2V P. 36 	Universal male elbow allows thread connection by using a socket wrench for confined spaces. 
Extended male elbow KQ2W P. 36 	Basically, it is used together with male elbow. Different point is that it is used for fittings to avoid with interfering with each other by making the piping two-level. 
Male branch tee KQ2T P. 34 	Use to branch line from female thread in both 90° directions. 
Gasket KQG P. 36 	Thread seal 

- K
- M
- H
- D
- MS
- T
- VMG

How to Order

KQ 2 H 06 U01

- One-touch fittings**
- Product's color**

Symbol	Body	Release button
2	White	Light gray
Nil	Black	Blue
- Applicable tubing O.D.**

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12
16	ø16
- Port size**

Thread connection	U01	Uni 1/8
	U02	Uni 1/4
	U03	Uni 3/8
	U04	Uni 1/2
- Model**

H	Male connector	T	Male branch tee
S	Hex. socket head male connector	Y	Male run tee
L	Male elbow	U	Branch
K	45° male elbow		
V	Universal male elbow		
W	Extended male elbow		

How to Order Gasket

KQG U01

- Gasket for Uni One-touch fittings**
- Applicable port size**

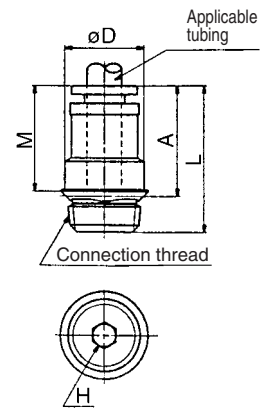
U01	Uni 1/8
U02	Uni 1/4
U03	Uni 3/8
U04	Uni 1/2

Series KQ2

<Metric size> Hexagon Socket Head Male Connector: KQ2S



Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD	L	A*	M	Effective area (mm ²)		Weight (g)	
								Nylon	Urethane		
4	1/8	KQ2S04-U01	3	10	23.5	18.5	16	4.1	3.6	7	
6	1/8	KQ2S06-U01	4	11.8	24	19	17	10.0	9.9	9	
	1/4	KQ2S06-U02						10.7	10.0	12	
8	1/8	KQ2S08-U01	5	14	27.5	22.5	18.5	17.2	16.2	12	
	1/4	KQ2S08-U02	6					28		22	14
	3/8	KQ2S08-U03	17					27.5		21.5	24
10	1/8	KQ2S10-U01	5	17	30	25	21	17.2	10.0	18	
	1/4	KQ2S10-U02	8					29		23	17
	3/8	KQ2S10-U03	21					28.5		22.5	19
	1/2	KQ2S10-U04	21					29		21	36
12	1/4	KQ2S12-U02	8	19	30.5	25	22	46.0	44.5	20	
	3/8	KQ2S12-U03	9					31		25	22
	1/2	KQ2S12-U04	21					28.5		20.5	30

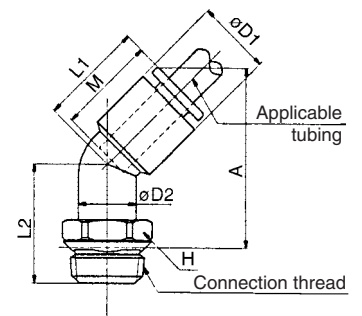


* Reference dimensions after Uni thread installation.

<Metric size> 45° Male Elbow: KQ2K



Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD1	øD2	L1	L2	A*	M	Effective area (mm ²)		Weight (g)
										Nylon	Urethane	
4	1/8	KQ2K04-U01	10	10.4	10	17	18.5	30	16	3.4	3.4	6
	1/4	KQ2K04-U02	14				20.5	30.5				13
6	1/8	KQ2K06-U01	10	12.8	10	18	18.5	31	17	8.7	8.7	7
	1/4	KQ2K06-U02	14				20.5	32				13
	3/8	KQ2K06-U03	17				21.5	32				23
8	1/8	KQ2K08-U01	12	15.2	12	20.5	20	35	18.5	19.7	13.6	11
	1/4	KQ2K08-U02	14				22	36				15
	3/8	KQ2K08-U03	17				23	36				24
10	1/8	KQ2K10-U01	17	18.5	17	24	22	38	21	21.6	14.9	24
	1/4	KQ2K10-U02					23.5	40.5				21
	3/8	KQ2K10-U03					24	41				25
	1/2	KQ2K10-U04					22	27				42
12	1/4	KQ2K12-U02	17	20.9	17	25	24	42	22	44.5	35.1	23
	3/8	KQ2K12-U03					24.5	42.5				27
	1/2	KQ2K12-U04					22	27.5				43.5

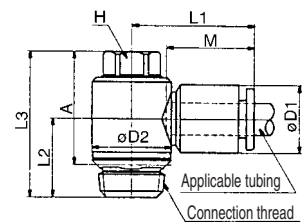


* Reference dimensions after Uni thread installation.

<Metric size> Universal Male Elbow: KQ2V



Applicable tubing O.D. (mm)	Connection thread Uni One-touch fittings	Model	H (width across flats)	øD1	øD2	L1	L2	L3	A*	M	Effective area (mm ²)		Weight (g)
											Nylon	Urethane	
4	1/8	KQ2V04-U01	8	10.4	13.4	22	13.5	25.5	20.5	16	2.9	2.9	12
6	1/8	KQ2V06-U01	8	12.8	13.4	24	13.5	25.5	20.5	17	7.5	7.5	13
	1/4	KQ2V06-U02	10										15.4
8	1/8	KQ2V08-U01	12	15.2	17.6	28.5	14.5	27.5	22.5	18.5	11.2	24	22
	1/4	KQ2V08-U02	16.5				29.5	23.5	30				25
	3/8	KQ2V08-U03	14				20.6	27.5	18.5				34
10	1/4	KQ2V10-U02	14	18.5	20.6	31	18.5	34	28	21	27	20.3	35
	3/8	KQ2V10-U03											38
12	3/8	KQ2V12-U03	17	20.9	25.2	34	20	36.5	30.5	22	39	30.8	52
	1/2	KQ2V12-U04					22.5	39.5	31.5				62

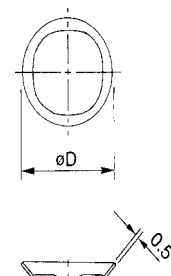


* Reference dimensions after Uni thread installation.

<Metric size> Gasket: KQG



Connection thread Uni One-touch fittings	Model	øD	Weight (g)
1/8	KQG-U01	11.8	0.12
1/4	KQG-U02	15.3	0.19
3/8	KQG-U03	18.7	0.23
1/2	KQG-U04	23.4	0.34



⚠ Precautions

Be sure to read before handling.
Refer to pages 15-18-3 to 15-18-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 15-1-10 to 15-1-11 for Precautions on every series.

Handling and Precautions

⚠ Caution

1. First tighten by hand, then use a proper wrench, which could be suitable for the hexagon across flats on the body to tighten with the proper tightening torque given below.

Connecting Female Thread: Rc, NPT, NPTF

Nominal size of Uni thread	Recommended tightening torque (N·m)	Approx. spanner tightening angle after tightened by hand
1/8	5 to 7	30 to 60
1/4	11 to 13	30 to 60
3/8	14 to 16	15 to 45
1/2	20 to 22	15 to 30

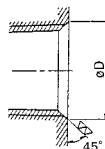
Connecting Female Thread: G

Nominal size of Uni thread	Recommended tightening torque (N·m)	Approx. spanner tightening angle after tightened by hand
1/8	3 to 4	30 to 45
1/4	4 to 5	15 to 30
3/8	8 to 9	15 to 30
1/2	14 to 15	15 to 30

2. Gasket can be recycled 6 to 10 times. It can be replaced easily when it has sustained damage. A broken gasket can be removed by holding and then turning in the same direction of loosening the thread. If it is difficult to remove, cut it with nippers, etc. In such a case, use caution not to scratch seat face because the seat face of 45° gasket of fitting is the sealing face.
3. Please consult with SMC if using for other fluids than air.
4. Other precautions on handling, etc. are the same as those of One-touch fittings.

Chamfered area for female thread (Recommended value)

By chamfering as shown in the following table, machining of threads is easier and effective for burr prevention, too.



Female thread size	Chamfered port size øD (Recommended value)	
	Rc, G	NPT, NPTF
1/8	10.2 to 11.8	10.5 to 11.8
1/4	13.6 to 15.8	14.1 to 15.8
3/8	17.1 to 19.4	17.4 to 19.4
1/2	21.4 to 25.1	21.7 to 25.1

K□

M□

H□

D□

MS

T□

VMG