

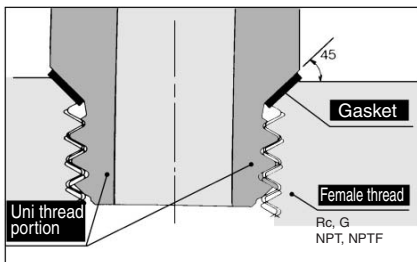
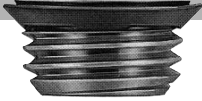
# Inch-size Uni One-touch Fittings

## Series KQ2

Applicable Tubing: Inch 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.

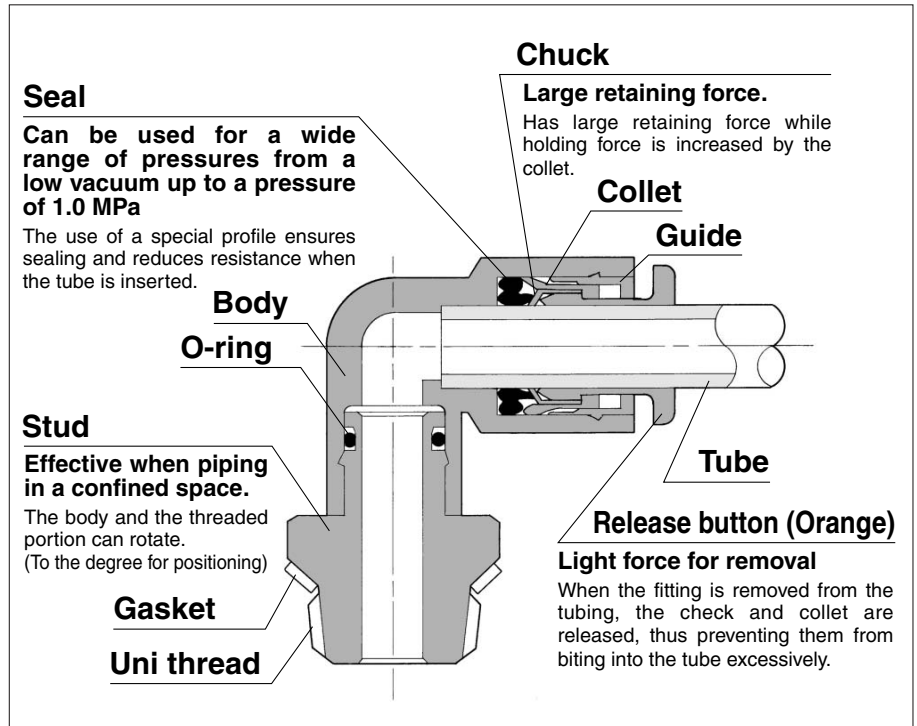
A ridge shape has been created as a Uni thread for common applications for Rc, G, NPT and NPTF.

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



### Product's Color

Series	Body	Release button
Series KQ2	White	Orange
Series KQ	Black	Red



### Applicable Tubing

Tubing material	Nylon, Soft nylon, Polyurethane
Tubing O.D. (inch)	$\phi 1/8$ , $\phi 5/32$ , $\phi 3/16$ , $\phi 1/4$ , $\phi 5/16$ , $\phi 3/8$ , $\phi 1/2$

### Specifications

Fluid	Air/Water <sup>Note)</sup>
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

K□

M□

H□








D□

MS

T□

VMG

# Series KQ2

Model	
<b>Male connector</b> <b>KQ2H</b> P. 33 	Use to pipe in the same direction from female thread. Most general style.
<b>Male elbow</b> <b>KQ2L</b> P. 33 	Use to pipe at right angles to female thread. Most general style.
<b>Male branch tee</b> <b>KQ2T</b> P. 33 	Use to branch line from female thread in both 90° directions.
<b>Male run tee</b> <b>KQ2Y</b> P. 34 	Use to branch line in the same direction from female thread and in 90° direction.
<b>Branch "Y"</b> <b>KQ2U</b> P. 34 	Use to branch line in the same direction from female thread.
<b>Extended male elbow</b> <b>KQ2W</b> P. 34 	Basically, it is used together with male elbow. Different point is that it is used for fittings to avoid from interfering with each other by making the piping two-level.
<b>Gasket</b> <b>KQG</b> 	Thread seal

## How to Order

**KQ 2 H 05 U01**

- One-touch fittings**
- Product's color**
- Model**
- Applicable tubing O.D.**
- Port size**

Symbol	Body	Release button
2	White	Orange
Nil	Black	Red

H	Male connector
L	Male elbow
W	Extended male elbow
T	Male branch tee
Y	Male run tee
U	Branch "Y"

01	1/8
03	5/32
05	3/16
07	1/4
09	5/16
11	3/8
13	1/2

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

**How to Order Gasket**

**KQG U01**

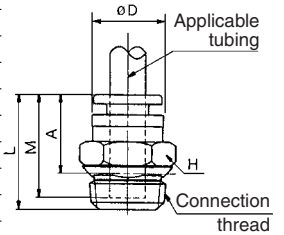
- Gasket for Uni One-touch fittings**
- Applicable port size**

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

## <Inch size> Male Connector: KQ2H



Applicable tubing O.D. (inch)	Connection thread Uni thread	Model	H (Width across flats)	L	A *	M	Min. port size	Weight (g)
1/8	1/8	KQ2H01-U01	11.11	18.5	13.5	15.5	2.5	7
	1/4	KQ2H01-U02	14.29	16	10			10
5/32	1/8	KQ2H03-U01	11.11	18.5	13.5	16	3	6
	1/4	KQ2H03-U02	14.29	16.5	10.5			10
3/16	1/8	KQ2H05-U01	12.7	18.5	13.5	16	3.5	7
	1/4	KQ2H05-U02	14.29	17	11			9
1/4	1/8	KQ2H07-U01	14.29	22.5	17.5	17	4.6	9
	1/4	KQ2H07-U02		20.5	14.5			11
	3/8	KQ2H07-U03		17.46	17.5			11.5
5/16	1/8	KQ2H09-U01	14.29	25	20.5	18.5	6	12
	1/4	KQ2H09-U02		21.5	15.5			9
	3/8	KQ2H09-U03		17.46	19.5			13.5
3/8	1/4	KQ2H11-U02	17.46	28	22	21	7	19
	3/8	KQ2H11-U03						16
	1/2	KQ2H11-U04						22.23
1/2	1/4	KQ2H13-U02	22.23	30	24	22	9.6	33
	3/8	KQ2H13-U03		28.5	22.5			30
	1/2	KQ2H13-U04		25	17			28



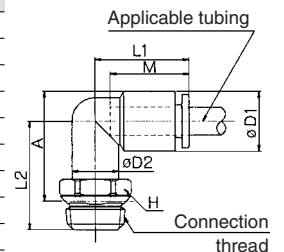
\* Reference dimensions after Uni thread installation.

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

## <Inch size> Male Elbow: KQ2L



Applicable tubing O.D. (inch)	Connection thread Uni thread	Model	H (Width across flats)	øD1	øD2	L1	L2	A *	M	Min. port size	Weight (g)
1/8	1/8	KQ2L01-U01	11.11	9.6	10	17.5	20	20.5	15.5	2.5	6
	1/4	KQ2L01-U02	14.29				22	21			13
5/32	1/8	KQ2L03-U01	11.11	10.4	10	18	20	21.5	16	3	7
	1/4	KQ2L03-U02	14.29				22.5	13			
3/16	1/8	KQ2L05-U01	11.11	11.4	10	19.5	20.5	22.5	16	3.5	8
	1/4	KQ2L05-U02	14.29				23	14			
1/4	1/8	KQ2L07-U01	11.11	13.2	10	20.5	21.5	24	17	4.6	8
	1/4	KQ2L07-U02	14.29				23.5	24.5			15
	3/8	KQ2L07-U03	17.46				24.5	25			21
5/16	1/8	KQ2L09-U01	12.7	15.2	12	23.5	22.5	25.5	18.5	6	10
	1/4	KQ2L09-U02	14.29				24.5	26.5			15
	3/8	KQ2L09-U03	17.46				25.5	27			17
3/8	1/4	KQ2L11-U02	17.46	17.9	17	25.5	26.5	29.5	21	7	18
	3/8	KQ2L11-U03					27	30			22
	1/2	KQ2L11-U04					30	31			41
1/2	1/4	KQ2L13-U02	17.46	21.7	17	28	28.5	33	22	9.6	23
	3/8	KQ2L13-U03					28.5	33.5			31
	1/2	KQ2L13-U04					32	35			44

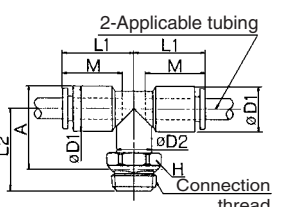


\* Reference dimensions after Uni thread installation.

## <Inch size> Male Branch tee: KQ2T



Applicable tubing O.D. (inch)	Connection thread Uni thread	Model	H (Width across flats)	øD1	øD2	L1	L2	A *	M	Min. port size	Weight (g)
1/8	1/8	KQ2T01-U01	11.11	9.6	10	17.5	20	21	15.5	2.5	8
	1/4	KQ2T01-U02	14.29				22	15			
5/32	1/8	KQ2T03-U01	11.11	10.4	10	18	20	21.5	16	3	9
	1/4	KQ2T03-U02	14.29				22.5	15			
3/16	1/8	KQ2T05-U01	11.11	11.4	10	19.5	20.5	22.5	16.5	3.5	10
	1/4	KQ2T05-U02	14.29				23	16			
1/4	1/8	KQ2T07-U01	11.11	13.2	10	20.5	21.5	24	17	4.6	10
	1/4	KQ2T07-U02	14.29				23.5	24.5			17
	3/8	KQ2T07-U03	17.46				24.5	25			24
5/16	1/8	KQ2T09-U01	12.7	15.2	12	23.5	22.5	26	18.5	6	14
	1/4	KQ2T09-U02	14.29				24.5	26.5			19
	3/8	KQ2T09-U03	17.46				25.5	27			25
3/8	1/4	KQ2T11-U02	17.46	17.9	17	25.5	26.5	29.5	21	7	24
	3/8	KQ2T11-U03					27	30			27
	1/2	KQ2T11-U04					30	31			46
1/2	1/4	KQ2T13-U02	17.46	21.7	17	28	28.5	33	22	9.6	29
	3/8	KQ2T13-U03					28.5	33.5			32
	1/2	KQ2T13-U04					32	35			51



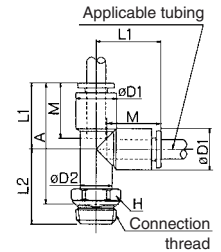
\* Reference dimensions after Uni thread installation.

# Series KQ2

## <Inch size> Male Run Tee: KQ2Y



Applicable tubing O.D. (inch)	Connection thread Uni thread	Model	H (Width across flats)	øD1	øD2	L1	L2	A *	M	Min. port size	Weight (g)	
1/8	1/8	KQ2Y01-U01	11.11	9.6	10	17.5	20	33.5	15.5	2.5	8	
	1/4	KQ2Y01-U02	14.29				22				15	
5/32	1/8	KQ2Y03-U01	11.11	10.4	10	18	20	34	16	3	9	
	1/4	KQ2Y03-U02	14.29				22.5				34.5	15
3/16	1/8	KQ2Y05-U01	11.11	11.4	10	19.5	20.5	36	16.5	3.5	10	
	1/4	KQ2Y05-U02	14.29				23				36.5	16
1/4	1/8	KQ2Y07-U01	11.11	13.2	10	20.5	21.5	38	17	4.6	10	
	1/4	KQ2Y07-U02	14.29				23.5				37.5	17
	3/8	KQ2Y07-U03	17.46				24.5				39	24
5/16	1/8	KQ2Y09-U01	12.7	15.2	12	23.5	22.5	42	18.5	6	14	
	1/4	KQ2Y09-U02	14.29				24.5				43	19
	3/8	KQ2Y09-U03	17.46				25.5				46	25
3/8	1/4	KQ2Y11-U02	17.46	17.9	17	25.5	26.5	46	21	7	24	
	3/8	KQ2Y11-U03	17.46				27				46.5	27
	1/2	KQ2Y11-U04	22.23				30				47.5	46
1/2	1/4	KQ2Y13-U02	17.46	21.7	17	28	28.5	50.5	22	9	29	
	3/8	KQ2Y13-U03	17.46				32				52	32
	1/2	KQ2Y13-U04	22.23				32				52	51

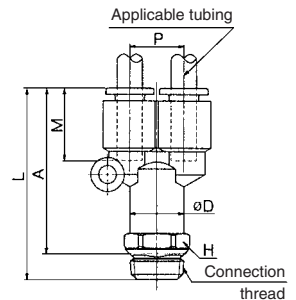


\* Reference dimensions after Uni thread installation.

## <Inch size> Branch "Y": KQ2U



Applicable tubing O.D. (inch)	Connection thread Uni thread	Model	H (Width across flats)	øD	L	P	A *	M	Min. port size	Weight (g)
1/8	1/8	KQ2U01-U01	12.7	9.6	38.5	9.6	34.5	15.5	2.5	10
	1/4	KQ2U01-U02	14.29		40.5					
5/32	1/8	KQ2U03-U01	12.7	10.4	40	10.4	36	16	3	12
	1/4	KQ2U03-U02	14.29		42					
3/16	1/8	KQ2U05-U01	12.7	11.4	42	11.4	38	16.5	3.5	14
	1/4	KQ2U05-U02	14.9		39					
1/4	1/8	KQ2U07-U01	14.29	13.2	44.5	13.2	40.5	17	4.6	15
	1/4	KQ2U07-U02	14.29		46		40			
	3/8	KQ2U07-U03	17.46		46.5		40.5			
5/16	1/8	KQ2U09-U01	17.46	15.2	50.5	15.2	46.5	18.5	6	20
	1/4	KQ2U09-U02	17.46		52		46			18
	3/8	KQ2U09-U03	17.46		51.5		45.5			25
3/8	1/4	KQ2U11-U02	19.05	17.9	56.5	17.9	50.5	21	7	37
	3/8	KQ2U11-U03	19.05		51		32			
	1/2	KQ2U11-U04	22.23		59		38			
1/2	1/4	KQ2U13-U02	22.23	21.7	61	21.7	55	22	9.6	26
	3/8	KQ2U13-U03	22.23		62.7		54.7			30
	1/2	KQ2U13-U04	22.23		62.7		54.7			50

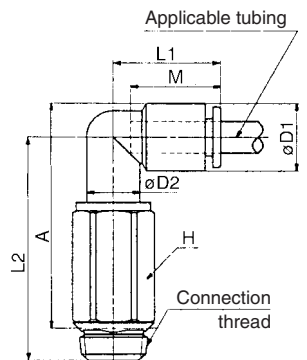


\* Reference dimensions after Uni thread installation.

## <Inch size> Extended Male Elbow: KQ2W



Applicable tubing O.D. (inch)	Connection thread Uni thread	Model	H (Width across flats)	øD1	øD2	L1	L2	A *	M	Min. port size	Weight (g)
1/8	1/8	KQ2W01-U01	11.11	9.6	10	17.5	34.5	34	15.5	2.5	17
	1/4	KQ2W01-U02	14.29				36.5	35.5			26
5/32	1/8	KQ2W03-U01	11.11	10.4	10	18	34.5	35.5	16	3	18
	1/4	KQ2W03-U02	14.29				37	36.1			26
3/16	1/8	KQ2W05-U01	11.11	11.4	10	19.5	35	36	16.5	3.5	19
	1/4	KQ2W05-U02	14.29				40	39.5			27
1/4	1/8	KQ2W07-U01	11.11	13.2	10	20.5	36	37.5	17	4.6	21
	1/4	KQ2W07-U02	14.29				41	41.5			31
	3/8	KQ2W07-U03	17.46				41.5	42			39
5/16	1/8	KQ2W09-U01	12.7	15.2	12	23.5	43.5	46.5	18.5	6	26
	1/4	KQ2W09-U02	14.29				45.5	47			35
	3/8	KQ2W09-U03	17.46				46	48			39
3/8	1/4	KQ2W11-U02	17.46	17.9	17	25.5	52.5	55.5	21	7	59
	3/8	KQ2W11-U03	17.46				52	55			55
	1/2	KQ2W11-U04	22.23				54.5	55.5			97
1/2	1/4	KQ2W13-U02	17.46	21.7	17	28	54	59	22	9	64
	3/8	KQ2W13-U03	17.46				56				64
	1/2	KQ2W13-U04	22.23				56				9.6



\* Reference dimensions after Uni thread installation.

## ⚠ 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 of Uni One-touch Fittings

#### ⚠ 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 (deg)
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

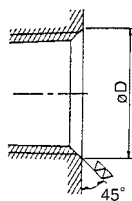
#### Connecting Female Thread: G

Nominal size of Uni thread	Recommended tightening torque (N·m)	Approx. spanner tightening angle after tightened by hand (deg)
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