

# Miniature One-touch Fittings

## Inch-size One-touch Mini

# Series KJ

Applicable Tubing :  $\phi 1/8''$ ,  $\phi 5/32''$ ,  $\phi 1/4''$

Connection Thread : 10-32 UNF, NPT 1/16, NPT 1/8

K□  
M□  
H□  
D□  
MS  
T□  
VMG

**Guide 1**  
**Guide 2**  
**Chuck**

Suitable for use with nylon, soft nylon and urethane.  
Large retaining force.  
Has large retaining force.

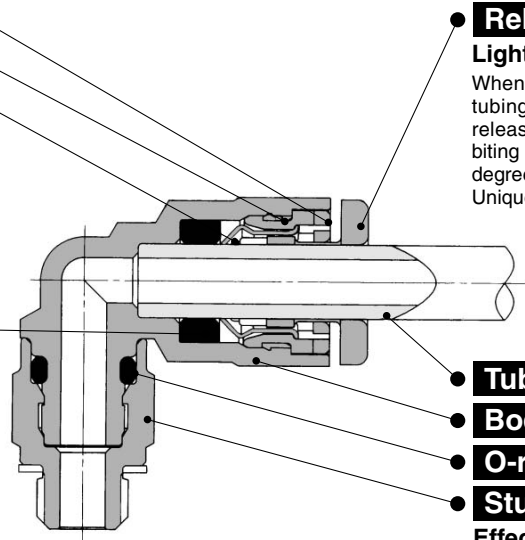
**Seal**

Can be used for a wide range of pressures from a low vacuum up to a pressure of 1.0 MPa  
The use of a special profile ensures sealing and reduces resistance when the tube is inserted.

**Release button (Orange)**

**Light force for removal**

When the fitting is removed from the tubing, the chuck and collet are released, thus preventing them from biting into the tube to an unnecessary degree.  
Unique shape allows easy tube release.



**Tube**

**Body (White)**

**O-ring**

**Stud**

**Effective when piping in a confined space.**

- The body and the threaded portion can rotate (for positioning to some extent).
- Stud is electroless nickel plated.
- NPT 1/16, NPT 1/8 with sealant for thread

PAT.PEND

**Optimum piping in less space with 20% reduction of the outside**

**Thread seal is standard.**

**Copper-free specifications (Electroless nickel plated)**

**Possible to use from vacuum -100 kPa**



### Applicable Tubing

|                 |                                       |
|-----------------|---------------------------------------|
| Tubing material | Nylon, Soft nylon, Polyurethane       |
| Tubing O.D.     | $\phi 1/8$ , $\phi 5/32$ , $\phi 1/4$ |

### Specifications

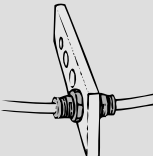
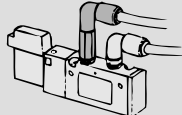
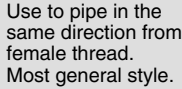
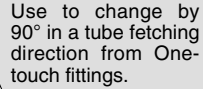
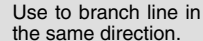
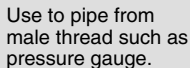
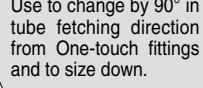
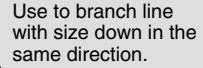
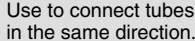
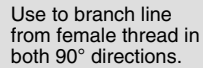
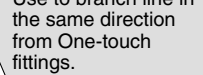
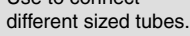
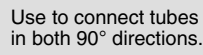
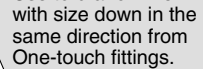
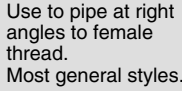
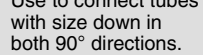
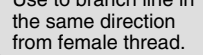
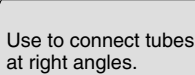
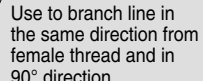
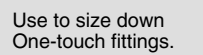
|                               |                                                |                                                                             |
|-------------------------------|------------------------------------------------|-----------------------------------------------------------------------------|
| 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)    |                                                                             |
| Thread                        | Mounting section                               | ANSI/ASME B1.20.1-1983 (NTP thread)<br>JIS B 0212 2A, Class 2B (UNF thread) |
|                               | Nut section                                    | JIS B 0212 2A, Class 2B (UNF thread)                                        |
| Thread seal (Standard)        | With thread seal                               |                                                                             |
| Copper-free (Standard)        | Brass parts are all electroless nickel plated. |                                                                             |

**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                    | Stainless steel 303, C3604BD, PBT |
| Stud                    | C3604BD (Thread portion)          |
| Chuck, Guide 2          | Stainless steel 304               |
| Release button, Guide 1 | POM                               |
| Seal, O-ring            | NBR                               |
| Gasket                  | Stainless steel 304, NBR          |

# Series KJ

| Model                                                                                                                                     |                                                                                             |                                                                                                                                    |                                                                                              |                                                                                                                                              |                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Hex. socket head male connector</b><br><b>KJS</b><br> | P. 3<br>   | <b>Bulkhead union</b><br><b>KJE</b><br>           | P. 8<br>    | <b>Extended male elbow</b><br><b>KJW</b><br>              | P. 5<br>   |
| <b>Male connector</b><br><b>KJH</b><br>                  | P. 3<br>   | <b>Plug-in elbow</b><br><b>KJL</b><br>            | P. 4<br>   | <b>Union "Y"</b><br><b>KJU</b><br>                        | P. 7<br>   |
| <b>Female connector</b><br><b>KJF</b><br>                | P. 3<br>   | <b>Reducer elbow</b><br><b>KJL</b><br>            | P. 5<br>   | <b>Different dia. union "Y"</b><br><b>KJU</b><br>         | P. 7<br>   |
| <b>Straight union</b><br><b>KJH</b><br>                 | P. 3<br>   | <b>Male branch tee</b><br><b>KJT</b><br>         | P. 5<br>  | <b>Plug-in "Y"</b><br><b>KJU</b><br>                     | P. 7<br>  |
| <b>Different diameter straight</b><br><b>KJH</b><br>   | P. 4<br> | <b>Union tee</b><br><b>KJT</b><br>              | P. 6<br> | <b>Different diameter plug-in "Y"</b><br><b>KJX</b><br> | P. 7<br> |
| <b>Male elbow</b><br><b>KJL</b><br>                    | P. 4<br> | <b>Different diameter tee</b><br><b>KJT</b><br> | P. 6<br> | <b>Branch "Y"</b><br><b>KJU</b><br>                     | P. 8<br> |
| <b>Union elbow</b><br><b>KJL</b><br>                   | P. 4<br> | <b>Male run tee</b><br><b>KJY</b><br>           | P. 6<br> | <b>Plug-in reducer</b><br><b>KJR</b><br>                | P. 8<br> |
| <b>Gasket/10-32 UNF seal on thread</b><br><b>Part no.: M-10/32G</b><br><b>Material: Stainless steel 304. NBR</b>                          |                                                                                             |                                                                                                                                    |                                                                                              |                                                                                                                                              |                                                                                               |

Gasket/10-32 UNF seal on thread

Part no.: M-10/32G

Material: Stainless steel 304, NBR

## ⚠ 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.

### Interchangeability of Series KJ and KQ

#### ⚠ Caution

1. Do not use the plug-in KQ Series with the KJ Series, it will not hold.
2. For combinations other than the plug-in KQs, they are interchangeable.

### Installation and Removal of One-touch Mini Fittings

#### ⚠ Caution

##### Installing of tube

1. Cut the tube perpendicularly, using caution not to damage its surface. (Use tube cutter "TK-1", "TK-2" or "TK-3". Do not cut the tube with cutting pliers, nippers, scissors, etc.)
2. Grasp the tube, then slowly push it until it comes to a stop.
3. Then, pull it back gently to make sure that it does not come out.

##### Removing of tube

(Use one hand for removal.)

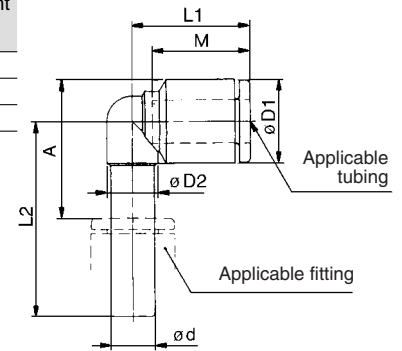
1. Hold the release button with the thumb ↓ and forefinger.
2. Grasp the tube with the remaining three ↓ fingers and palm.
3. Then, pull out the tube with three fingers ↓ and palm while pushing in the release button with the thumb and the forefinger.
4. To reuse the released tube, cut off the damaged portion of the tube.

## Reducer Elbow: KJL



| Applicable tubing O.D. (inch) | Applicable fitting size $\phi d$ (inch) | Model    | Note) $\phi D1$ | $\phi D2$ | L1   | L2   | A    | M    | Min. port size | Weight (g) |
|-------------------------------|-----------------------------------------|----------|-----------------|-----------|------|------|------|------|----------------|------------|
| 1/8                           | 5/32                                    | KJL01-03 | 8.4             | 6         | 14.5 | 24.3 | 15.8 | 12.7 | 2.2            | 1.1        |
|                               | 1/4                                     | KJL01-07 |                 | 6.35      | 14.7 | 25.8 | 16.4 |      | 2.2            | 1.3        |
| 5/32                          | 1/4                                     | KJL03-07 | 9.3             | 6.35      | 14.9 | 26.2 | 17.3 | 12.7 | 2.5            | 1.5        |

Note)  $\phi D1$ : Max. diameter



## Extended Male Elbow: KJW

<10-32 UNF>



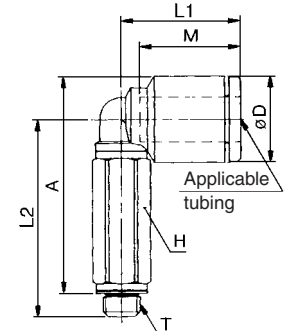
| Applicable tubing O.D. (inch) | Connection thread (T) UNF NPT | Model     | H (Width across flats) | Note) $\phi D$ | L1   | L2   | A      | M    | Min. port size | Weight (g) |
|-------------------------------|-------------------------------|-----------|------------------------|----------------|------|------|--------|------|----------------|------------|
| 1/8                           | 10-32 UNF                     | KJW01-32  | 7                      | 8.4            | 15.3 | 26.2 | 27.3   | 12.7 | 2.3            | 6.2        |
|                               | 1/16                          | KJW01-33S | 9.5                    |                |      | 29.4 | 29.6 * |      | 2.5            | 11.5       |
|                               | 1/8                           | KJW01-34S | 11.11                  |                |      | 25.7 | 25.9 * |      |                | 13.4       |
| 5/32                          | 10-32 UNF                     | KJW03-32  | 7                      | 9.3            | 15.6 | 26.7 | 28.3   | 12.7 | 2.3            | 6.4        |
|                               | 1/16                          | KJW03-33S | 9.5                    |                |      | 29.9 | 30.6 * |      | 2.5            | 11.7       |
|                               | 1/8                           | KJW03-34S | 11.11                  |                |      | 26.2 | 26.9 * |      |                | 13.6       |
| 1/4                           | 10-32 UNF                     | KJW07-32  | 7                      | 12             | 16.1 | 28.1 | 31     | 13.6 | 2.3            | 6.9        |
|                               | 1/16                          | KJW07-33S | 9.5                    |                |      | 31.3 | 33.3 * |      | 2.5            | 10.7       |
|                               | 1/8                           | KJW07-34S | 11.11                  |                |      | 30.3 | 32.3 * |      | 4.6            | 13.2       |

\* Reference dimensions after NPT thread installation.  
Note)  $\phi D$ : Max. diameter

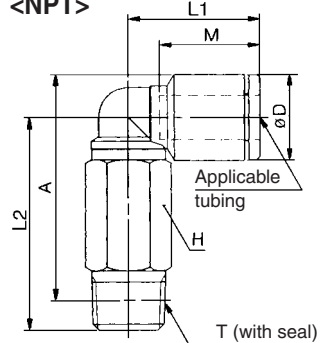
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<10-32 UNF>



<NPT>



## Male Branch Tee: KJT

<10-32 UNF>



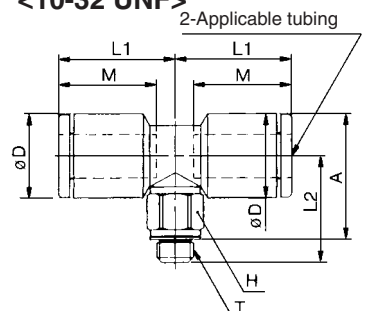
| Applicable tubing O.D. (inch) | Connection thread (T) UNF NPT | Model     | H (Width across flats) | Note) $\phi D$ | L1   | L2   | A      | M    | Min. port size | Weight (g) |
|-------------------------------|-------------------------------|-----------|------------------------|----------------|------|------|--------|------|----------------|------------|
| 1/8                           | 10-32 UNF                     | KJT01-32  | 7                      | 8.4            | 15.3 | 13.2 | 14.3   | 12.7 | 2.3            | 3.2        |
|                               | 1/16                          | KJT01-33S | 9.5                    |                |      | 16.4 | 16.6 * |      | 2.5            | 6.6        |
|                               | 1/8                           | KJT01-34S | 11.11                  |                |      | 15.4 | 15.6 * |      |                | 7.4        |
| 5/32                          | 10-32 UNF                     | KJT03-32  | 7                      | 9.3            | 15.6 | 13.7 | 15.3   | 12.7 | 2.3            | 3.5        |
|                               | 1/16                          | KJT03-33S | 9.5                    |                |      | 16.9 | 17.6 * |      | 2.5            | 6.9        |
|                               | 1/8                           | KJT03-34S | 11.11                  |                |      | 15.9 | 16.6 * |      |                | 7.7        |
| 1/4                           | 10-32 UNF                     | KJT07-32  | 7                      | 12             | 16.1 | 15.1 | 18     | 13.6 | 2.3            | 4.4        |
|                               | 1/16                          | KJT07-33S | 9.5                    |                |      | 18.3 | 20.3 * |      | 2.5            | 6.8        |
|                               | 1/8                           | KJT07-34S | 11.11                  |                |      | 17.8 | 19.3 * |      | 4.6            | 7.6        |

\* Reference dimensions after NPT thread installation.  
Note)  $\phi D$ : Max. diameter

<NPT>



<10-32 UNF>



<NPT>

