

# Pipe Fittings (Stainless Steel)

Tapped Union / Threaded Adapter / Threaded Tee / Union for Partition / Port Connector

Old product standards the "Fittings for stainless steel pipes" has been moved to our web product listings.

**Stainless Steel Pipe Fittings – Tapped Union**

**SKUF**

Material: 316 Stainless Steel

Includes ferrules (see SKFKP)

| Part Number Type | D | R (PT) T | T Rc (PT) | L    | B    | C    | F    | E   | H    | Opposite Side  |                |
|------------------|---|----------|-----------|------|------|------|------|-----|------|----------------|----------------|
|                  |   |          |           |      |      |      |      |     |      | H <sub>1</sub> | H <sub>2</sub> |
| SKUF             | 4 | 1        | 1/8       | 34.8 | 11   | 17.8 | 15.3 | 3.5 | 27.5 | 14             | 14             |
|                  |   | 2        | 1/4       | 35.8 | 13   | 17.8 | 15.3 | 3.5 | 28.5 | 14             | 17             |
|                  | 6 | 1        | 1/8       | 34.9 | 11   | 17.9 | 15.4 | 5   | 27.5 | 14             | 14             |
|                  |   | 2        | 1/4       | 35.9 | 13   | 17.9 | 15.4 | 5   | 28.5 | 14             | 17             |
|                  | 8 | 2        | 3/8       | 37.9 | 14   | 17.9 | 15.4 | 5   | 30.5 | 14             | 22             |
|                  |   | 3        | 1/2       | 38.8 | 14   | 18.8 | 16.8 | 6   | 31   | 15.87          | 22             |
| 10               | 2 | 1/4      | 37.8      | 13   | 19.8 | 17.8 | 8    | 30  | 19   | 17             |                |
|                  | 3 | 3/8      | 39.8      | 14   | 19.8 | 17.8 | 8    | 32  | 19   | 22             |                |
| 12               | 3 | 3/8      | 42.8      | 14   | 22.8 | 22.8 | 10   | 32  | 23   | 22             |                |

**Stainless Steel Pipe Fittings – Threaded Tee**

**SKUTM**

Material: 316 Stainless Steel

Includes ferrules (see SKFKP)

| Part Number Type | D   | R (PT) T | T Rc (PT) | L    | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> | L    | B    | F  | E     | H |
|------------------|-----|----------|-----------|------|----------------|----------------|----------------|------|------|----|-------|---|
|                  |     |          |           |      |                |                |                |      |      |    |       |   |
| 2                | 1/4 | 23       | 43        | 28.9 | 57.8           | 21.5           | 13             | 15.4 | 5    | 14 |       |   |
| 6                | 1   | 1/8      | 22        | 44   | 29.8           | 59.6           | 22             | 11   | 16.8 | 5  | 15.87 |   |
|                  | 2   | 1/4      | 23        | 44   | 29.8           | 59.6           | 22             | 13   | 16.8 | 6  | 15.87 |   |
| 8                | 2   | 3/8      | 25        | 46   | 30.8           | 61.6           | 23             | 13   | 17.8 | 7  | 19    |   |
|                  | 3   | 1/2      | 30        | 55   | 38.3           | 76.6           | 27.5           | 14   | 22.8 | 9  | 23    |   |

**Stainless Steel Pipe Fittings – Port Connector**

**SKPGK**

Material: 316 Stainless Steel

Select the same D dimension as that of stainless steel pipe fittings.

| Part Number Type | D          | Square Nut H |
|------------------|------------|--------------|
|                  |            |              |
|                  | 3.18 (1/8) | 12           |
|                  | 4          | 14           |
|                  | 6          | 14           |
|                  | 6.35 (1/4) | 14           |
|                  | 8          | 15.87        |
|                  | 9.53 (3/8) | 19           |
|                  | 10         | 19           |
|                  | 12         | 23           |
|                  | 12.7 (1/2) | 23           |

Values in ( ) for D dimension are by inch.

Refer to P.3371 for tightening procedure and structure of joint portion, applicable pipe specification.

**Stainless Steel Pipe Fittings – Threaded Adapter**

**SKMA**

Material: 316 Stainless Steel

| Part Number Type | D   | R (PT) T | Drawing | R Rc (PT) | L | E <sub>1</sub> | E <sub>2</sub> | B  | l <sub>1</sub> | H |
|------------------|-----|----------|---------|-----------|---|----------------|----------------|----|----------------|---|
|                  |     |          |         |           |   |                |                |    |                |   |
| 2                | (1) | 1/4      | 39      | 6         | 3 | 13             | 19             | 14 |                |   |
| 6                | 1   | (2)      | 1/8     | 34        | 5 | 6              | 10             | 19 | 12             |   |
|                  | 2   | (3)      | 1/4     | 39        | 6 | 6              | 13             | 19 | 14             |   |
| 8                | 2   | (1)      | 3/8     | 40        | 8 | 6              | 14             | 19 | 17             |   |
|                  | 3   | (2)      | 1/4     | 44        | 6 | 8              | 13             | 24 | 14             |   |
| 10               | 2   | (3)      | 3/8     | 45        | 8 | 8              | 14             | 24 | 17             |   |
|                  | 3   | (2)      | 3/8     | 49        | 9 | 10             | 14             | 28 | 17             |   |

**Stainless Steel Pipe Fittings – Union for Partition**

**SKUWE**

Material: 316 Stainless Steel

Includes ferrules (see SKFKP)

| Part Number Type | D    | L  | B    | C    | F  | E  | h     | H  | l    | Installation Hole Dia. | Max. plate thickness for installation |
|------------------|------|----|------|------|----|----|-------|----|------|------------------------|---------------------------------------|
|                  |      |    |      |      |    |    |       |    |      |                        |                                       |
| 6                | 59.8 | 28 | 17.9 | 15.4 | 5  | 17 | 14    | 45 | 11.5 | 13                     |                                       |
| 8                | 62.6 | 29 | 18.8 | 16.8 | 6  | 17 | 15.87 | 47 | 13.2 | 13.5                   |                                       |
| 10               | 64.6 | 30 | 19.8 | 17.8 | 8  | 22 | 19    | 49 | 16.2 | 14.5                   |                                       |
| 12               | 73.6 | 32 | 22.8 | 22.8 | 10 | 26 | 23    | 52 | 19.5 | 16                     |                                       |

Part Number Example

Part Number SKUF4 - T 2

SKUWE6

Application Example

# Pipe Fittings (Stainless Steel)

Ferrule Pack

Unable to use in combination with products of old part numbers.

**Stainless Steel Pipe Fittings Ferrule Pack**

**SKFKP**

Material: 316 Stainless Steel

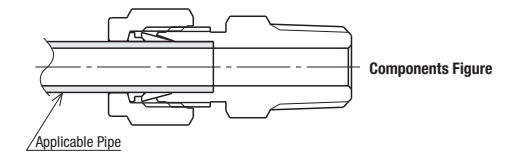
\*Front and back ferrules (1 each) come in a set.

| Part Number Type | D mm (in)  |
|------------------|------------|
|                  |            |
|                  | 3.18 (1/8) |
|                  | 4          |
|                  | 6          |
|                  | 6.35 (1/4) |
|                  | 8          |
|                  | 9.53 (3/8) |
|                  | 10         |
|                  | 12         |
|                  | 12.7 (1/2) |

Values in ( ) for D dimension are by inch.

## Features and Structure of Fittings

A stainless steel pipe fitting is composed of a main body, a front ferrule, a back ferrule and a nut. Operating temperature range of Stainless Steel Pipe Fitting is -196~600°C.



## Allowable Operating Pressure by Thickness of Stainless Steel Pipe (MPa)

| Pipe O.D. (mm) | Thickness (mm) |      |      |      |
|----------------|----------------|------|------|------|
|                | 0.5            | 1.0  | 1.5  | 2.0  |
| 4              | 30.7           | 61.5 | —    | —    |
| 6              | —              | 41.0 | 61.5 | —    |
| 8              | —              | 30.7 | 46.1 | —    |
| 10             | —              | 24.6 | 36.9 | —    |
| 12             | —              | 20.5 | 30.7 | 41.0 |

## Tightening Procedure of Fittings

- Insert the pipe into the fitting until the pipe tip hits the shoulder inside without removing the nut.
- Hand-tighten the nut until the end of its rotation. Put a mark on this position as  $\odot$  Point.
- Hold the fitting body tightly with a wrench and tighten the nut with another wrench by the rotation number on the right.

Note: For plastic tube connections, use Insert (SKITK) for tubes together without fail and tighten  $\varnothing 4$ – $\varnothing 12.7$  tubes by  $1\frac{1}{4}$ – $1\frac{1}{2}$  rotations.

$\varnothing 4$  Model:  $\frac{3}{8}$  Turn  
 $\varnothing 6$ – $\varnothing 12.7$  Model:  $1\frac{1}{4}$  Turn

## How to Tighten

- Be sure to confirm the position of the nut (the standard position for rotation) before loosening it to remove the nut. Make sure that front ferrule is applied at the appropriate position. Make sure that there is no foreign object on the tapered surface, front and rear of the body.
- Insert the pipe all the way until the front ferrule contacts closely, and then tighten the nut by hand. (Insert carefully to avoid the tapered part on the main body being scratched by the pipe end.)
- Tighten a little more past the position before loosening by a wrench.

Position before Tighten the Nut

Retightening Position (Tighten with a little more rotation)

15°–30°

## Applicable Pipe Specification

- Applicable Type of Pipe: Stainless Steel Pipe
- Stainless steel pipes (Pipe Stainless Steel) subject to 304 Stainless Steel and 316 Stainless Steel for stainless steel pipes.
- O.D. Tolerance:  $\pm 0.05$  mm
- Pipe Surface Hardness: HV190 or Less (HRB90 or Less)
- Condition of Pipe Surface: Avoid using pipes with defects such as surface roughness and scratches.

Part Number Example

SKFKP12.7

## Allowable Operating Pressure by Thickness of Stainless Steel Pipe (MPa) (Inch)

| Pipe O.D. (mm)  | Thickness (mm) |      |      |
|-----------------|----------------|------|------|
|                 | 1.0            | 1.5  | 2.0  |
| 6.35 (1/4 Inch) | 38.7           | 58.1 | —    |
| 9.53 (3/8 Inch) | 25.8           | 38.7 | —    |
| 12.7 (1/2 Inch) | 19.3           | 29.0 | 38.7 |