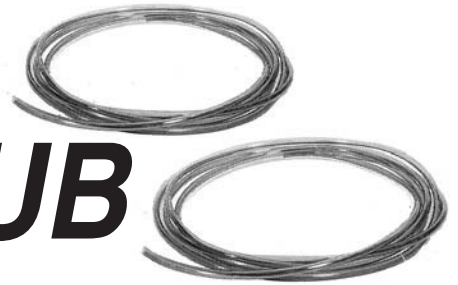


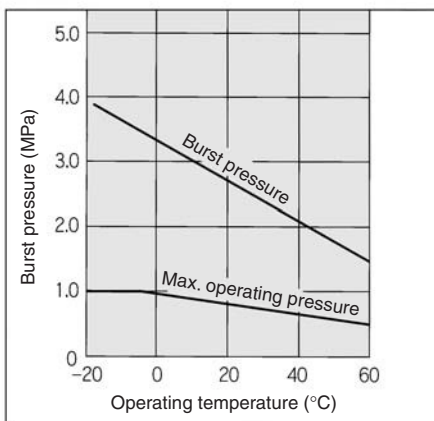
Polyurethane Tubing

Series TU/TIUB



For general pneumatic tubing
Flexible
Polyurethane tubing
Additional 21 new colors.

Burst Pressure Characteristics Curve and Operating Pressure

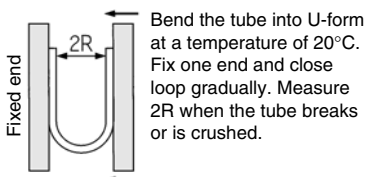


⚠ Precautions

Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 13 to 16 for Fittings and Tubing Precautions.

⚠ Caution

- Applicable for general industrial water. Please consult with SMC if using for the other kind of fluid. Also, the surge voltage pressure must be under the maximum operating pressure. If the surge pressure exceeds the maximum operating pressure, it will result in damage to fittings and tubes.
- The value of the max. operating pressure is at a temperature of 20°C. Refer to the burst pressure characteristics curve for other temperatures. Furthermore, abnormal temperature rises caused by adiabatic compression may result in the burst of the tube.
- The value of the minimum bending radius is measured at the temperature of 20°C as shown in the figure below.



Model/Specifications

● — 20 m roll □ — 100 m roll
△ — Option ■ — Manufactured upon receipt of order (Please consult with SMC.)

| Model | Tubing size | | | | | | | | | | | |
|--------------------|-------------------------|--------|--------|--------|--------|--------|-------------------------|--------|--------|--------|--------|--------|
| | Metric size (Series TU) | | | | | | Inch size (Series TIUB) | | | | | |
| | TU0212 | TU0425 | TU0604 | TU0805 | TU1065 | TU1208 | TU1610 | TIUB01 | TIUB05 | TIUB07 | TIUB11 | TIUB13 |
| Tubing O.D. (mm) | 2 | 4 | 6 | 8 | 10 | 12 | 16 | 3.18 | 4.76 | 6.35 | 9.53 | 12.7 |
| Tubing I.D. (mm) | 1.2 | 2.5 | 4 | 5 | 6.5 | 8 | 10 | 2 | 3.18 | 4.23 | 6.35 | 8.46 |
| Black (B) | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| White (W) | ● | ● | ● | ● | ● | ● | ● | ● | △ | △ | △ | △ |
| Red (R) | ● | ● | ● | ● | ● | ● | ■ | ● | △ | △ | △ | △ |
| Blue (BU) | ● | ● | ● | ● | ● | ● | □ | ● | ● | ● | ● | ● |
| Yellow (Y) | ● | ● | ● | ● | ● | ● | ■ | ● | △ | △ | △ | △ |
| Green (G) | ● | ● | ● | ● | ● | ● | ■ | ● | △ | △ | △ | △ |
| Clear (C) | ● | ● | ● | ● | ● | ● | □ | ● | △ | △ | △ | △ |
| Orange (YR) | ■ | ● | ● | ● | ● | ● | ■ | ● | △ | △ | △ | △ |
| Solid blue (BU1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Clear blue (BU2) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Medium blue (BU3) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Brown (BR1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Solid green (G1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Clear green (G2) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Neon green (G3) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Dark green (G4) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Gray (GR1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Light gray (GR2) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Neon pink (P1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Solid purple (PU1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Clear purple (PU2) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Solid red (R1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Clear red (R2) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Silver (S1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Solid yellow (Y1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Clear yellow (Y2) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Neon yellow (Y3) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Clear orange (YR1) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |
| Neon orange (YR2) | ■ | ● | ● | ● | ● | ● | ■ | ● | ■ | ■ | ■ | ■ |

| Nominal size (inch) | |
|---------------------|-------|
| 5/32" | 5/16" |
| 1/8" | 3/16" |
| 1/4" | 3/8" |
| 1/2" | |

| | | | | | | | | | | | | |
|---------------------------------|--|----|----|----|----|----|----|----|----|----|----|----|
| Fluid | Air/Water | | | | | | | | | | | |
| Max. operating pressure at 20°C | 0.8 MPa | | | | | | | | | | | |
| Burst pressure | Refer to the burst pressure characteristics curve. | | | | | | | | | | | |
| Applicable fittings | One-touch fittings, Insert fittings, Self-align fittings, Miniature fittings | | | | | | | | | | | |
| Min. bending radius (mm) | 4 | 10 | 15 | 20 | 27 | 35 | 45 | 10 | 15 | 23 | 27 | 35 |
| Operating temperature | -20 to +60°C (Water: 0 to 40°C) (No freezing) | | | | | | | | | | | |
| Material | Polyurethane | | | | | | | | | | | |

How to Order

TU0425 BU - 20

Tubing model

Length per roll

| Symbol | Length |
|--------|------------|
| 20 | 20 m roll |
| 100 | 100 m roll |

Color

| Symbol | Color | Symbol | Color |
|------------|-------------|------------|--------------|
| B | Black | GR1 | Gray |
| W | White | GR2 | Light gray |
| R | Red | P1 | Neon pink |
| BU | Blue | PU1 | Solid purple |
| Y | Yellow | PU2 | Clear purple |
| G | Green | R1 | Solid red |
| C | Clear | R2 | Clear red |
| YR | Orange | S1 | Silver |
| BU1 | Solid blue | Y1 | Solid yellow |
| BU2 | Clear blue | Y2 | Clear yellow |
| BU3 | Medium blue | Y3 | Neon yellow |
| BR1 | Brown | YR1 | Clear orange |
| G1 | Solid green | YR2 | Neon orange |
| G2 | Clear green | | |
| G3 | Neon green | | |
| G4 | Dark green | | |

- K**
- M**
- H**
- KK**
- D**
- MS**
- LQ**
- MQR**
- T**

Made to Order

(Please contact SMC for specifications in detail, dimensions, delivery and specifications other than those mentioned above.)

- 100 m reel** Metric size and Inch size: Suffix "-X3" to the end of part number. Ex.) TU0425R-100-X3
- Longer length reel** Metric size: Suffix "-X3" to the end of part number. Ex.) TU0425G-500-X3
- 20 m roll** Inch size: Suffix "-X4" to the end of part number. Ex.) TIUB07W-20-X4

Made to Order Availability

| Part no. | Length \ Model | TU0425 * | TU0604 * | TU0805 * | TU1065 * | TU1208 * | TIUB01 * | TIUB05 * | TIUB07 * | TIUB11 * | TIUB13 * | Color |
|-----------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|
| X3 | 100 m reel | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | Black, White, Red, Blue, Yellow, Green, Clear, Orange |
| | 200 m reel | | | ○ | | | | | | | | |
| | 400 m reel | | ○ | | | | | | | | | |
| | 500 m reel | ○ | | | | | | | | | | |
| X4 | 20 m roll | | | | | | ○ | ○ | ○ | ○ | ○ | Red, White, Yellow, Green, Clear, Orange |

Soft Polyurethane Tubing Series TUS

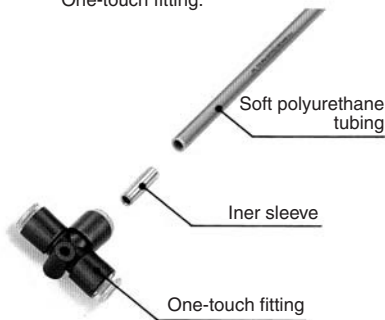


Suitable for piping in confined spaces

Extremely flexible
Soft polyurethane tubing

TUS related accessories Inner sleeve Series TJ

Reinforces soft polyurethane tubing. Insert an inner sleeve into soft polyurethane tubing when used with a One-touch fitting.



Model

| Model | Applicable tubing model | Length |
|---------|-------------------------|--------|
| TJ-0425 | TUS0425 | 18 |
| TJ-0604 | TUS0604 | 19 |
| TJ-0805 | TUS0805 | 20.5 |
| TJ-1065 | TUS1065 | 23 |
| TJ-1208 | TUS1208 | 24 |

Specifications

| | |
|----------------|------------------------------------|
| Material | C2700T (Electroless nickel plated) |
| Wall thickness | 0.2 mm |

⚠ Precautions

Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 13 to 16 for Fittings and Tubing Precautions.

⚠ Caution

1. Use a nylon or polyurethane tubing for general industrial water, otherwise the tube may result in being fallen out or bursted when the max. operating pressure is lower and the surge pressure is occurred.
2. The value of the max. operating pressure is at a temperature of 20°C. Refer to the burst pressure characteristics curve for other temperatures. Furthermore, abnormal temperature rises caused by adiabatic compression may result in the burst of the tube.
3. The value of the minimum bending radius is measured at the temperature of 20°C as shown in the figure on the right.
4. Use inner sleeve, taking the removing force into consideration when used with One-touch fittings.

Model/Specifications

● — 20 m roll □ — 100 m reel

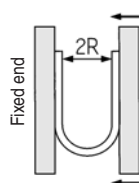
| Model | TUS0425 | TUS0604 | TUS0805 | TUS1065 | TUS1208 |
|--------------------------------|---------|---------|---------|---------|---------|
| Tubing O.D. (mm) | 4 | 6 | 8 | 10 | 12 |
| Tubing I.D. (mm) | 2.5 | 4 | 5 | 6.5 | 8 |
| Black (B) | ● | ● | ● | ● | ● |
| White (W) | ● | ● | ● | ● | ● |
| Red (R) | ● | ● | ● | ● | ● |
| Blue (BU) | ● | ● | ● | ● | ● |
| Yellow (Y) | ● | ● | ● | ● | ● |
| Green (G) | ● | ● | ● | ● | ● |
| Translucent (N) ⁽¹⁾ | ● | ● | ● | ● | ● |
| Yellow brown (YB) | ● | ● | ● | ● | ● |

| | | | | | | |
|--|--|----|-----|-----|-----|-----|
| Fluid | Air | | | | | |
| Max. operating pressure at 20°C | 0.6 MPa | | | | | |
| Burst pressure | Refer to the burst pressure characteristics curve. | | | | | |
| Applicable fittings | One-touch fitting, Insert tube fitting, Hose nipple ⁽³⁾ | | | | | |
| Min. bending radius (mm) ⁽²⁾ | 8 | 15 | 15 | 22 | 29 | |
| Operating temperature | -20 to +60°C (No freezing) | | | | | |
| Material | Polyurethane | | | | | |
| Tube drawing strength (N) (Using One-touch fitting) | Without inner sleeve | 15 | 60 | 60 | 85 | 110 |
| | With inner sleeve | 80 | 230 | 250 | 300 | 480 |



Note 1) Not clear, but translucent due to material.

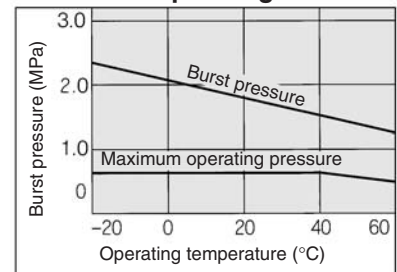
Note 2) Min. bending radius is measured as shown in the figure below.



Bend the tube into U-form at a temperature of 20°C. Fix one end and close loop gradually. Measure 2R when the tube breaks or is crushed.

Note 3) Always use inner sleeve (Series TJ) in safety circuit or critical area.

Burst Pressure Characteristics Curve and Operating Pressure



How to Order

TUS1065 B - 100

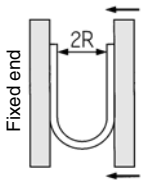
Tubing model Color Length per roll

| Symbol | Color |
|--------|--------------|
| B | Black |
| W | White |
| R | Red |
| BU | Blue |
| Y | Yellow |
| G | Green |
| N | Translucent |
| YB | Yellow brown |

| Symbol | Length |
|--------|-------------------------------|
| 20 | 20 m roll |
| 100 | 100 m reel (Black, Blue only) |

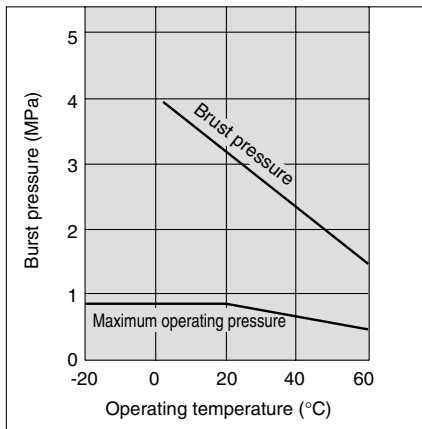
Hard Polyurethane Tubing/Standard Type

Series *TUH*



Bend the tube into U-form at a temperature of 20°C. Fix one end and close loop gradually. Measure 2R when the tube breaks or is crushed.

Burst Pressure Characteristics Curve and Operating Pressure



⚠️ Precautions

Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 13 to 16 for Fittings and Tubing Precautions.

⚠️ Caution

- Please consult with SMC regarding other fluids. Because ester polyurethane is used, water cannot be used due to the occurrence of hydrolysis.
- The value of the max. operating pressure is at a temperature of 20°C. Refer to the burst pressure characteristics curve for other temperatures. Furthermore, abnormal temperature rises caused by adiabatic compression may result in the burst of the tube.
- The value of the minimum bending radius is measured at the temperature of 20°C as shown in the figure above.

Model/Specifications

● — 20 m roll □ — 100 m roll

| Model | TUH0428 | TUH0644 | TUH0858 | TUH1073 | TUH1288 |
|-----------|---------|---------|---------|---------|---------|
| O.D. (mm) | 4 | 6 | 8 | 10 | 12 |
| I.D. (mm) | 2.8 | 4.4 | 5.8 | 7.3 | 8.8 |

| | | | | | |
|-----------------|---|---|---|---|---|
| Black (B) | ● | ● | ● | ● | ● |
| White (W) | □ | □ | □ | □ | □ |
| Blue (BU) | ● | ● | ● | ● | ● |
| Translucent (N) | □ | □ | □ | □ | □ |

| | | | | | |
|----------------------------------|--|----|----|----|----|
| Fluid | Air | | | | |
| Max operating pressure (at 20°C) | 0.8 MPa | | | | |
| Applicable fittings | One-touch fittings | | | | |
| Min. bending radius (mm) | 10 | 18 | 24 | 30 | 36 |
| Burst pressure | Refer to the burst pressure characteristics curve. | | | | |
| Operating temperature | -20 to 60°C | | | | |
| Material | Polyurethane | | | | |

How to Order

TUH0644 **B** - **20**

Tubing model ●

● Length per roll

| Symbol | Length |
|--------|------------|
| 20 | 20 m roll |
| 100 | 100 m roll |

● Color

| Symbol | Color |
|--------|-------------|
| B | Black |
| W | White |
| BU | Blue |
| N | Translucent |

K□

M□

H□

KK

D□

MS

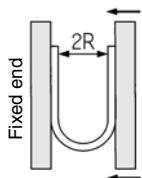
LQ

MQR

T□

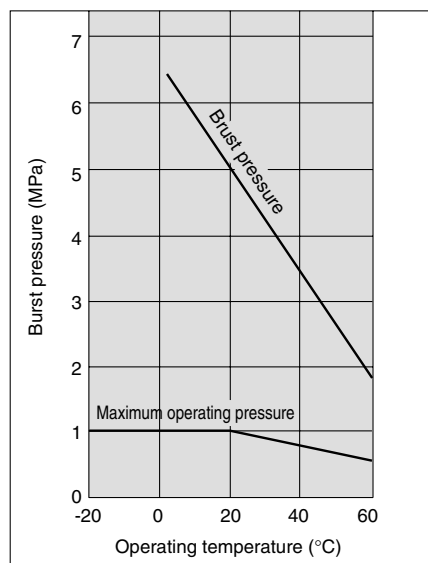
Hard Polyurethane Tubing/High Pressure Type

Series *TUH*



Bend the tube into U-form at a temperature of 20°C. Fix one end and close loop gradually. Measure 2R when the tube breaks or is crushed.

Burst Pressure Characteristics Curve and Operating Pressure



⚠️ Precautions

Be sure to read before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 13 to 16 for Fittings and Tubing Precautions.

⚠️ Caution

- Please consult with SMC regarding other fluids. Because ester polyurethane is used, water cannot be used due to the occurrence of hydrolysis.
- The value of the max. operating pressure is at a temperature of 20°C. Refer to the burst pressure characteristics curve for other temperatures. Furthermore, abnormal temperature rises caused by adiabatic compression may result in the burst of the tube.
- The value of the minimum bending radius is measured at the temperature of 20°C as shown in the figure above.

Model/Specifications

● — 20 m roll □ — 100 m roll

| Model | TUH0425 | TUH0604 | TUH0805 | TUH1065 | TUH1208 |
|-----------|---------|---------|---------|---------|---------|
| O.D. (mm) | 4 | 6 | 8 | 10 | 12 |
| I.D. (mm) | 2.5 | 4 | 5 | 6.5 | 8 |

| | | | | | |
|-----------------|---|---|---|---|---|
| Black (B) | ● | □ | ● | □ | ● |
| White (W) | ● | □ | ● | □ | ● |
| Blue (BU) | ● | □ | ● | □ | ● |
| Translucent (N) | ● | □ | ● | □ | ● |

| | | | | | |
|----------------------------------|--|----|----|----|----|
| Fluid | Air | | | | |
| Max operating pressure (at 20°C) | 1.0 MPa | | | | |
| Applicable fittings | One-touch fittings, Insert fittings, Self-align fittings, Miniature fittings | | | | |
| Min. bending radius (mm) | 10 | 15 | 20 | 27 | 35 |
| Burst pressure | Refer to the burst pressure characteristics curve. | | | | |
| Operating temperature | -20 to 60°C | | | | |
| Material | Polyurethane | | | | |

How to Order

TUH0604 **B** - **20**

Tubing model ●

● Length per roll

| Symbol | Length |
|--------|------------|
| 20 | 20 m roll |
| 100 | 100 m roll |

● Color

| Symbol | Color |
|--------|-------------|
| B | Black |
| W | White |
| BU | Blue |
| N | Translucent |