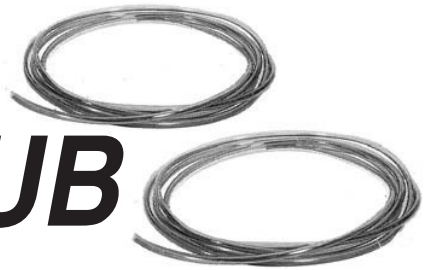


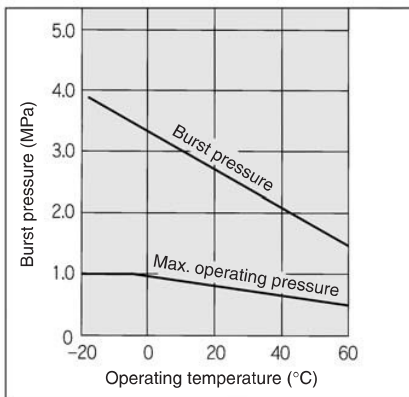
# Polyurethane Tubing

## Series TU/TIUB



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

### Burst Pressure Characteristics Curve and Operating Pressure

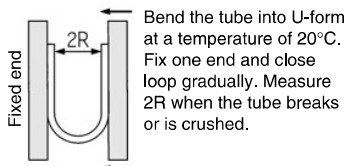


### ⚠ Precautions

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)	■	■	■	■	■	■	■	■	■	■	■	■

5/32"

5/16"

Nominal size (inch)

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
<b>20</b>	20 m roll
<b>100</b>	100 m roll

Color

Symbol	Color	Symbol	Color
<b>B</b>	Black	<b>GR1</b>	Gray
<b>W</b>	White	<b>GR2</b>	Light gray
<b>R</b>	Red	<b>P1</b>	Neon pink
<b>BU</b>	Blue	<b>PU1</b>	Solid purple
<b>Y</b>	Yellow	<b>PU2</b>	Clear purple
<b>G</b>	Green	<b>R1</b>	Solid red
<b>C</b>	Clear	<b>R2</b>	Clear red
<b>YR</b>	Orange	<b>S1</b>	Silver
<b>BU1</b>	Solid blue	<b>Y1</b>	Solid yellow
<b>BU2</b>	Clear blue	<b>Y2</b>	Clear yellow
<b>BU3</b>	Medium blue	<b>Y3</b>	Neon yellow
<b>BR1</b>	Brown	<b>YR1</b>	Clear orange
<b>G1</b>	Solid green	<b>YR2</b>	Neon orange
<b>G2</b>	Clear green		
<b>G3</b>	Neon green		
<b>G4</b>	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
<b>X3</b>	100 m reel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Black, White, Red, Blue, Yellow, Green, Clear, Orange
	200 m reel			<input type="radio"/>								
	400 m reel		<input type="radio"/>									
	500 m reel	<input type="radio"/>										
<b>X4</b>	20 m roll							<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Red, White, Yellow, Green, Clear, Orange

# Soft Polyurethane Tubing Series TUS

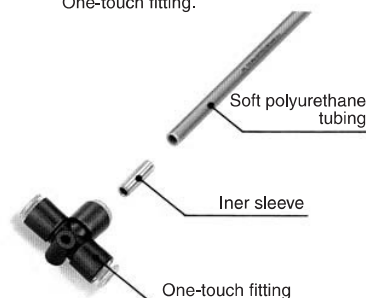


Suitable for piping in  
confined spaces

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

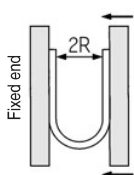
Model	TUS0425	TUS0604	TUS0805	TUS1065	TUS1208
Tubing O.D. (mm)	4	6	8	10	12
Tubing I.D. (mm)	2.5	4	5	6.5	8
Black (B)	●	●	●	●	●
White (W)	●	●	●	●	●
Red (R)	●	●	●	●	●
Blue (BU)	●	●	●	●	●
Yellow (Y)	●	●	●	●	●
Green (G)	●	●	●	●	●
Translucent (N) <sup>(1)</sup>	●	●	●	●	●
Yellow brown (YB)	●	●	●	●	●

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 <sup>(3)</sup>				
Min. bending radius (mm) <sup>(2)</sup>	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
	With inner sleeve	80	230	250	300
		110	480		



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

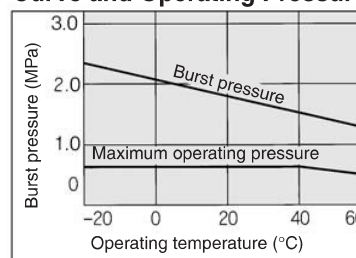
Note 2) Min. bending radius is measured as shown in the figure below.



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

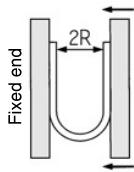
Symbol	Color
B	Black
W	White
R	Red
BU	Blue
Y	Yellow
G	Green
N	Translucent
YB	Yellow brown

Length per roll

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

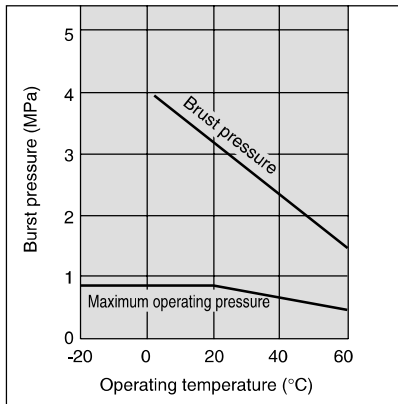
# Hard Polyurethane Tubing/Standard Type

## 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

1. Please consult with SMC regarding other fluids. Because ester polyurethane is used, water cannot be used due to the occurrence of hydrolysis.
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 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**

Tubing model ●

**B**

● Color

Symbol	Color
B	Black
W	White
BU	Blue
N	Translucent

**20**

● Length per roll

Symbol	Length
20	20 m roll
100	100 m roll

K□

M□

H□

KK

D□

MS

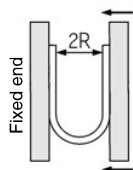
LQ

MQR

T□

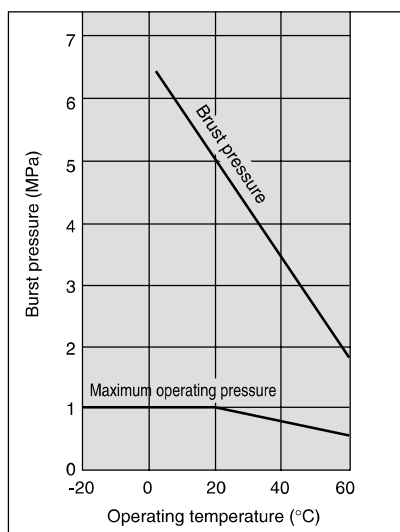
# Hard Polyurethane Tubing/High Pressure Type

## 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

1. Please consult with SMC regarding other fluids. Because ester polyurethane is used, water cannot be used due to the occurrence of hydrolysis.
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 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**

Tubing model ●

**B**

● Color

Symbol	Color
B	Black
W	White
BU	Blue
N	Translucent

**20**

● Length per roll

Symbol	Length
20	20 m roll
100	100 m roll