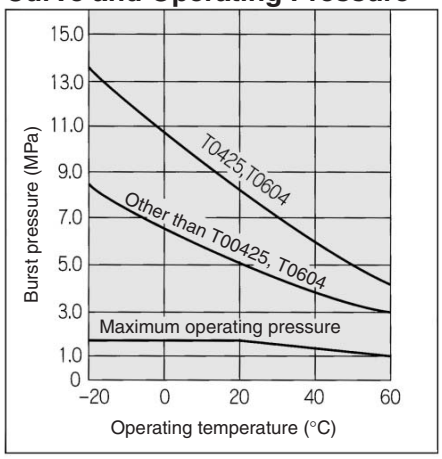
Nylon Tubing
Series T/TIA

For general pneumatic tubing, Nylon tubing

Burst Pressure Characteristics Curve and Operating Pressure



⚠ Precautions

Be sure to read before handling. Refer to pages 15-18-3 to 4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to pages 15-1-10 to 11 for Precautions on every series.

⚠ Caution

1. Applicable for general industrial water. Please consult with SMC if using other kinds of fluid. Surge pressure must be under the max. operating pressure.
   If the surge pressure exceeds the maximum operating pressure, it will result in damage to fittings and tubes.
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.

Model/Specifications

● — 20 m roll □ — 100 m roll (T1613 is reel.)

	Tubing size												
	Metric size (Series T)								Inch size (Series TIA)				
Model	T0425	T0403	T0604	T0645	T0806	T1075	T1209	T1613	TIA01	TIA05	TIA07	TIA11	TIA13
Tubing O.D. (mm)	4	4	6	6	8	10	12	16	3.18	4.76	6.35	9.53	12.7
Tubing I.D. (mm)	2.5	3	4	4.5	6	7.5	9	13	2.18	3.48	4.57	6.99	9.56
Black (B)	●	●	●	●	●	●	●	●	●	●	●	●	●
White (W)	●	●	●	●	●	●	●	●	●	●	●	●	●
Red (R)	●	●	●	●	●	●	●	●	●	●	●	●	●
Blue (BU)	●	●	●	●	●	●	●	●	●	●	●	●	●
Yellow (Y)	●	●	●	●	●	●	●	●	●	●	●	●	●
Green (G)	●	●	●	●	●	●	●	●	●	●	●	●	●
	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)	1.5 MPa												
Burst pressure	Refer to the burst pressure characteristics curve.												
Min. bending radius (mm)	13	25	24	36	48	60	75	100	15	20	30	60	75
Operating temperature	–20 to +60°C (Water: 0 to 40°C) (No freezing)												
Material	Nylon 12												

How to Order

T0425 **B** — **20**

- **T0425**: Tubing model
- **B**: Color

Symbol	Color	Symbol	Color
B	Black	**BU**	Blue
W	White	**Y**	Yellow
R	Red	**G**	Green

- **20**: Length per roll

Symbol	Length *
20	20 m roll
100	100 m roll (Black and white only)

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 except ø16: Suffix "-X3" to the end of part number. Ex.) TS0425R-100-X3
Longer length reel	Metric size: Suffix "-X3" to the end of part number. Ex.) TS0425G-500-X3
20 m roll	Inch size: Suffix "-X4" to the end of part number. Ex.) TISA01BU-20-X4

Made to Order Availability

Part no.	Length \ Model	T0425 *	T0604 *	T0806 *	T1075 *	T1209 *	TIA01 *	TIA05 *	TIA07 *	TIA11 *	TIA13 *	Color
X3	100 m reel	○	○	○	○	○	○	○	○	○	○	Black, White, Red, Blue, Yellow, Green
	150 m reel				○							
	200 m reel			○								
	500 m reel	○	○									
X4	20 m roll						○	○	○	○	○	Red, Blue, Yellow, Green

Safety Instructions

These safety instructions are intended to prevent a hazardous situation and/or equipment damage. These instructions indicate the level of potential hazard by labels of **"Caution", "Warning"** or **"Danger"**. To ensure safety, be sure to observe ISO 4414 Note 1), JIS B 8370 Note 2) and other safety practices.

⚠ Caution : Operator error could result in injury or equipment damage.

⚠ Warning : Operator error could result in serious injury or loss of life.

⚠ Danger : In extreme conditions, there is a possible result of serious injury or loss of life.

Note 1) ISO 4414: Pneumatic fluid power--General rules relating to systems.
Note 2) JIS B 8370: General Rules for Pneumatic Equipment

⚠ Warning

1. The compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.

Since the products specified here are used in various operating conditions, their compatibility for the specific pneumatic system must be based on specifications or after analysis and/or tests to meet your specific requirements. The expected performance and safety assurance will be the responsibility of the person who has determined the compatibility of the system. This person should continuously review the suitability of all items specified, referring to the latest catalog information with a view to giving due consideration to any possibility of equipment failure when configuring a system.

2. Only trained personnel should operate pneumatically operated machinery and equipment.

Compressed air can be dangerous if an operator is unfamiliar with it. Assembly, handling or repair of pneumatic systems should be performed by trained and experienced operators.

3. Do not service machinery/equipment or attempt to remove components until safety is confirmed.

1. Inspection and maintenance of machinery/equipment should only be performed once measures to prevent falling or runaway of the driver objects have been confirmed.
2. When equipment is to be removed, confirm the safety process as mentioned above. Cut the supply pressure for this equipment and exhaust all residual compressed air in the system.
3. Before machinery/equipment is restarted, take measures to prevent shooting-out of cylinder piston rod, etc.

4. Contact SMC if the product is to be used in any of the following conditions:

1. Conditions and environments beyond the given specifications, or if product is used outdoors.
2. Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverages, recreation equipment, emergency stop circuits, clutch and brake circuits in press applications, or safety equipment.
3. An application which has the possibility of having negative effects on people, property, or animals, requiring special safety analysis.