

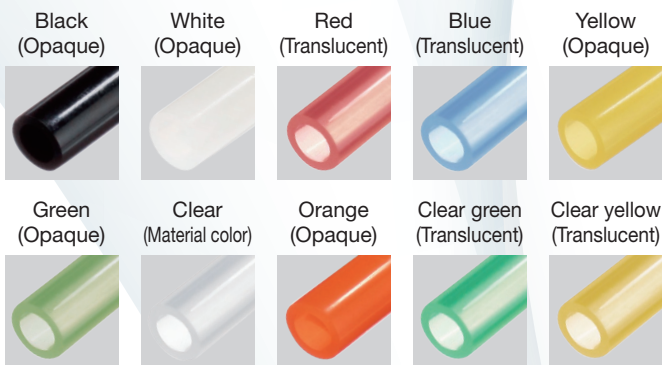
Polyurethane Tubing

New
RoHS

Compatible with the Japan Food Sanitation Law (Food Sanitation Law compliance test based on the 370th notice given by the Ministry of Health and Welfare in 1959)
In compliance with the FDA's (U.S. Food and Drug Administration) § 177.2600 dissolution test and the (EU) No 10/2011 dissolution test *

* Using materials posted in the positive list

Color Variations: 10 colors in all

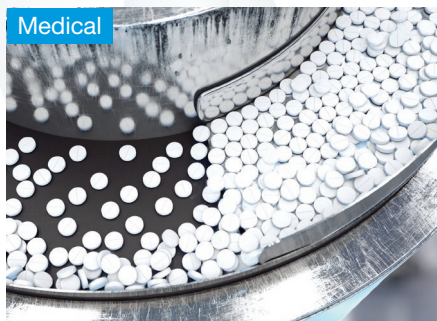


Equipment for the Food Manufacturing Industry

HF2B- Series

- Lubricants or rust proof agents are not used for the external parts and fluid contact parts. Otherwise, lubricants or rust proof agents for the food machinery are being used.
- US FDA compliant materials are used.

Application Examples



* Please use the product in accordance with the specifications provided in the catalogs/operation manuals. It is your responsibility to check the suitability for your workpiece and equipment.

Series Variations

Model	TU0425	TU0604	TU0805	TU1065	TU1208
O.D. [mm]	4	6	8	10	12
I.D. [mm]	2.5	4	5	6.5	8

HF2B-TU Series

SVC
CAT.ES50-49A

Related Products

Directional Control Valves
Clean Design Manifold Valve
JSY5000-H



Air Cylinder
Stainless Steel Cylinder/
Non-adjustable Air Cushion Type
HF2A-CG5



Air Preparation Equipment
Modular Connection Type
Antibacterial Filter/Odor Removal Filter/
Bacterial Removal Filter
HF2-BF□



Bacterial Removal Filter/
Hollow Fiber Element
HF2B-SFDA



EHEDG Compliant Fittings
KFG2H□-E



Clean Design Fittings
KFG2H□-C



US FDA Compliant Fittings
KQG2-F/KQB2-F/KFG2-F



Water Resistant Stainless Steel
Speed Controller
HF2A-ASG-□V



Stainless Steel Throttle Valve with
One-touch Fittings/In-line Type
HF2B-ASG-□TV



Equipment for the Food Manufacturing Industry

Lineup of equipment for various food production processes
Designed to help in meeting HACCP, PRP, and other standards, Applicable for a diverse range of food manufacturing processes, Possible to blow directly onto food

Equipment for the Food Manufacturing Industry

HF1□ Series



HF2□ Series



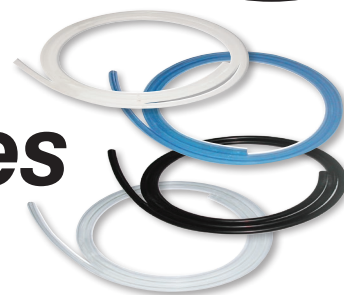
HF3□ Series



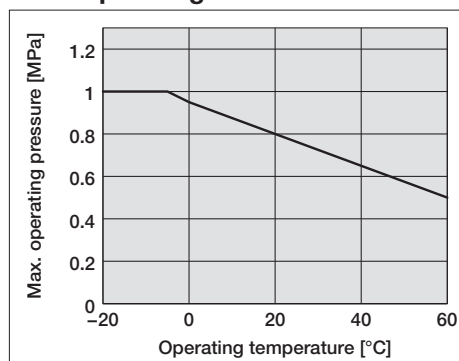
- Ice cream manufacturing process
- Meat and poultry manufacturing process
- Confectionery manufacturing process
- Processed cheese manufacturing process
- Bread manufacturing process
- Beverage manufacturing process

Polyurethane Tubing

HF2B-TU Series



Max. Operating Pressure



Precautions

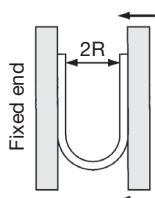
Be sure to read this before handling. For Safety Instructions and Fittings & Tubing Precautions, refer to "Handling Precautions for SMC Products" and the Operation Manual on SMC website.

Selection



Caution

- (1) Applicable for general industrial water. Also, the surge pressure must not exceed the maximum operating pressure. If the surge pressure exceeds the maximum operating pressure, it will result in damage to fittings and tubes.
- (2) Abnormal temperature rises caused by adiabatic compression may result in the tube bursting.
- (3) When concerned about unexpected tension being applied to the tubing, consider the use of an inner sleeve in order to improve reliability.
- (4) The value of the minimum bending radius is measured at the temperature of 20°C 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.

Model

● - 20 m roll

Model	TU0425	TU0604	TU0805	TU1065	TU1208
O.D. [mm]	4	6	8	10	12
I.D. [mm]	2.5	4	5	6.5	8
Sheath color	Black (B)	●	●	●	●
	White (W)	●	●	●	●
	Red (R)	●	●	●	●
	Blue (BU)	●	●	●	●
	Yellow (Y)	●	●	●	●
	Green (G)	●	●	●	●
	Clear (C)	●	●	●	●
	Orange (YR)	●	●	●	●
	Clear Green (G2)	●	●	●	●
	Clear Yellow (Y2)	●	●	●	●

Specifications

Applicable fluids and applicable fittings		Applicable fluids	Air, Water				
		Applicable fittings	One-touch fittings, Insert fittings, Miniature fittings				
Max. operating pressure [MPa]	20°C or below	Air	0.8				
		Water	0.8				
	40°C	Air	0.65				
		Water	0.65				
	60°C	Air	0.5				
		Water	-				
Min. bending radius [mm]			10	15	20	27	35
Operating temperature		Air	-20 to 60°C				
		Water	0 to 40°C (No freezing)				
Material			Polyurethane				
Compatible standards (dissolution tests)		Japan	Japan Food Sanitation Law: 370th notice given by the Ministry of Health and Welfare in 1959				
		USA	FDA: §177.2600				
		Europe	EU: No. 10/2011				

Inner sleeve

Tubing model	Applicable inner sleeve	
	TJ Series	TJG Series
TU0425	TJ-0425	TJG-0425
TU0604	TJ-0604	TJG-0604
TU0805	TJ-0805	TJG-0805
TU1065	TJ-1065	TJG-1065
TU1208	TJ-1208	TJG-1208

How to Order

HF2B-TU0425 BU-20

Tubing model ●

● Length per roll: 20 m

Color display

Symbol	Color	Symbol	Color
B	Black (Opaque)	G	Green (Opaque)
W	White (Opaque)	C	Clear (Material color)
R	Red (Translucent)	YR	Orange (Opaque)
BU	Blue (Translucent)	G2	Clear Green (Translucent)
Y	Yellow (Opaque)	Y2	Clear Yellow (Translucent)

* Note that the model number is not printed on the tube body.

Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of “**Caution**,” “**Warning**” or “**Danger**.” They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

 **Danger :** **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

 **Warning:** **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

 **Caution:** **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

*1) ISO 4414: Pneumatic fluid power - General rules and safety requirements for systems and their components
ISO 4413: Hydraulic fluid power - General rules and safety requirements for systems and their components
IEC 60204-1: Safety of machinery - Electrical equipment of machines - Part 1: General requirements
ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots etc.

Warning

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

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

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

1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. SMC products cannot be used beyond their specifications. They are not developed, designed, and manufactured to be used under the following conditions or environments. Use under such conditions or environments is not allowed.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Use for nuclear power, railways, aviation, space equipment, ships, vehicles, military application, equipment affecting human life, body, and property, combustion equipment, entertainment equipment, emergency shut-off circuits, press clutches, brake circuits, safety equipment, etc., and use for applications that do not conform to standard specifications such as catalogs and operation manuals.
3. Use for interlock circuits, except for use with double interlock such as installing a mechanical protection function in case of failure. Please periodically inspect the product to confirm that the product is operating properly.

Caution

SMC develops, designs, and manufactures products to be used for automatic control equipment, and provides them for peaceful use in manufacturing industries.

Use in non-manufacturing industries is not allowed.

Products SMC manufactures and sells cannot be used for the purpose of transactions or certification specified in the Measurement Act of each country. The new Measurement Act prohibits use of any unit other than SI units in Japan.

Limited warranty and Disclaimer/ Compliance Requirements

The product used is subject to the following “Limited warranty and Disclaimer” and “Compliance Requirements”.

Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.*2)
Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

***2) Suction cups (Vacuum pads) are excluded from this 1 year warranty.**

A suction cup (vacuum pad) is a consumable part, so it is warranted for a year after it is delivered.

Also, even within the warranty period, the wear of a product due to the use of the suction cup (vacuum pad) or failure due to the deterioration of rubber material are not allowed by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

 **Safety Instructions** Be sure to read the “Handling Precautions for SMC Products” (M-E03-3) and “Operation Manual” before use.