







# Thermo Scientific Masterflex® P/S

## Tubing





Thermo Fisher Scientific provides several types of tubing to meet your needs. Consider all aspects of your application: flow rate, pressure, viscosity, etc.

### Specifications

Pump Tubing Cross Sections	Masterflex P/S Precision Pump Tubing Sizes					
						
	P/S 13	P/S 14	F/S 16	P/S 25	P/S 17	P/S 18
Inside diameter (nominal)	0.8 mm (0.03")	1.6 mm (0.06")	3.1 mm (0.12")	4.8 mm (0.19")	6.4 mm (0.25")	7.9 mm (0.31")
Hose barb size (nominal)	1.6 mm (1/16")	1.6 mm (1/16")	3.2 mm (1/8")	4.8 mm (1/4")	6.4 mm (1/4")	9.5 mm (3/8")
Flow range (approximate)* with 6 to 600 rpm drive	0.36 to 36 mL/min (0.006 to 0.57 GPH)	1.3 to 130 mL/min (0.02 to 2.0 GPH)	4.8 to 480 mL/min (0.08 to 7.6 GPH)	10 to 1000 mL/min (0.16 to 15.8 GPH)	17 to 1700 mL/min (0.27 to 27 GPH)	23 to 2300 mL/min (0.36 to 36.4 GPH)
Maximum pressure, continuous	1.7 bar (25 psi)	1.7 bar (25 psi)	1.7 bar (25 psi)	1.4 bar (20 psi)	1.0 bar (15 psi)	0.7 bar (10 psi)
Maximum pressure, intermittent	2.7 bar (40 psi)	2.7 bar (40 psi)	2.7 bar (40 psi)	2.4 bar (35 psi)	1.4 bar (20 psi)	1.0 bar (15 psi)
Maximum vacuum†	660 mm Hg (26" Hg)	660 mm Hg (26" Hg)	660 mm Hg (26" Hg)	660 mm Hg (26" Hg)	510 mm Hg (20" Hg)	510 mm Hg (20" Hg)
Suction lift†	8.8 m H <sub>2</sub> O (29 ft H <sub>2</sub> O)	8.8 m H <sub>2</sub> O (29 ft H <sub>2</sub> O)	8.8 m H <sub>2</sub> O (29 ft H <sub>2</sub> O)	8.8 m H <sub>2</sub> O (29 ft H <sub>2</sub> O)	6.7 m H <sub>2</sub> O (22 ft H <sub>2</sub> O)	6.7 m H <sub>2</sub> O (22 ft H <sub>2</sub> O)

\*Flow ranges are approximate—calculated under the following conditions: 0 psig at inlet, 0.5 psig at outlet; water temperature at 22°C (72°F).  
 †Actual performance varies depending on tubing formulation—values shown are for firm tubing. For CHEM-SURE® and STA-PURE® tubing specifications, please contact factory.

### Specifications

Pump Tubing Cross Sections	Masterflex P/S High-Performance Precision Pump Tubing Sizes			
				
	P/S 15	P/S 24	P/S 35	P/S 36
Inside diameter (nominal)	4.8 mm (0.19")	6.4 mm (0.25")	7.9 mm (0.31")	9.7 mm (0.38")
Hose barb size (nominal)	4.8 mm (1/4")	6.4 mm (1/4")	9.5 mm (3/8")	9.5 mm (3/8")
Flow range (approximate)* with 6 to 600 rpm drive	10 to 1000 mL/min (0.16 to 15.8 GPH)	17 to 1700 mL/min (0.27 to 26.8 GPH)	23 to 2300 mL/min (0.36 to 36.3 GPH)	29 to 2900 mL/min (0.46 to 45.8 GPH)
Flow range (approximate)* with 6 to 800 rpm drive obtained with High-Performance pump head	11 to 1100 mL/min (0.17 to 17.4 GPH)	18 to 1800 mL/min (0.29 to 28.4 GPH)	26 to 2600 mL/min (0.41 to 41.1 GPH)	34 to 3400 mL/min (0.54 to 53.8 GPH)
Maximum pressure, continuous	1.7 bar (25 psi)	1.7 bar (25 psi)	1.4 bar (20 psi)	1.0 bar (15 psi)
Maximum pressure, intermittent	2.7 bar (40 psig)	2.7 bar (40 psig)	2.4 bar (35 psig)	2.4 bar (35 psig)
Maximum vacuum†	660 mm Hg (26" Hg)	660 mm Hg (26" Hg)	660 mm Hg (26" Hg)	610 mm Hg (24" Hg)
Suction lift†	8.8 m H <sub>2</sub> O (29 ft H <sub>2</sub> O)	8.8 m H <sub>2</sub> O (29 ft H <sub>2</sub> O)	8.8 m H <sub>2</sub> O (29 ft H <sub>2</sub> O)	8.3 m H <sub>2</sub> O (27 ft H <sub>2</sub> O)

\*Flow rates are approximate—calculated under the following conditions: 0 psig at inlet, 0.5 at outlet; water temperature at 22°C (72°F).  
 †Actual performance varies depending on tubing formulation—values shown are for firm tubing. For CHEM-SURE® and STA-PURE® tubing specifications, contact factory.

**High-Pressure Pump Tubing!**  
 Flexible pump tubing from Masterflex that allows you to pump at continuous pressures up to 100 psi. Pack of 7.6 m (25 ft).

Tubing Formulation	Masterflex® Pump Tubing Sizes	
	P/S® 16HP	P/S® 15HP
Tubing ID	1/8"	1/16"
Flow range	0.9 to 90 mL/min	1.7 to 170 mL/min
Max pressure, continuous	100 psi (6.8 bar)	80 psi (5.5 bar)
NORPRENE®	06504-16	06504-15
PHARMED®	06585-16	06585-15

**Ordering Information**

Tubing Formulation	Masterflex P/S Precision Pump Tubing Sizes					
	P/S 13	P/S 14	P/S 16	P/S 25	P/S 17	P/S 18
Silicone (platinum-cured)	96410-13 7.6 m (25 ft)/pk	96410-14 7.6 m (25 ft)/pk	96410-16 7.6 m (25 ft)/pk	96410-25 7.6 m (25 ft)/pk	96410-17 7.6 m (25 ft)/pk	96410-18 7.6 m (25 ft)/pk
Silicone (peroxide-cured)	96400-13 7.6 m (25 ft)/pk	96400-14 7.6 m (25 ft)/pk	96400-16 7.6 m (25 ft)/pk	96400-25 7.6 m (25 ft)/pk	96400-17 7.6 m (25 ft)/pk	96400-18 7.6 m (25 ft)/pk
BioPharm Plus silicone (platinum-cured)	96440-13 7.6 m (25 ft)/pk	96440-14 7.6 m (25 ft)/pk	96440-16 7.6 m (25 ft)/pk	96440-25 7.6 m (25 ft)/pk	96440-17 7.6 m (25 ft)/pk	96440-18 7.6 m (25 ft)/pk
C-FLEX® (50 A)	06424-13 7.6 m (25 ft)/pk	06424-14 7.6 m (25 ft)/pk	06424-16 7.6 m (25 ft)/pk	06424-25 7.6 m (25 ft)/pk	06424-17 7.6 m (25 ft)/pk	06424-18 7.6 m (25 ft)/pk
TYGON® LFL	06429-13 7.6 m (25 ft)/pk	06429-14 7.6 m (25 ft)/pk	06429-16 7.6 m (25 ft)/pk	06429-25 7.6 m (25 ft)/pk	06429-17 7.6 m (25 ft)/pk	06429-18 7.6 m (25 ft)/pk
TYGON food (B-44-4X)	06419-13 15.2 m (50 ft)/pk	06419-14 15.2 m (50 ft)/pk	06419-16 15.2 m (50 ft)/pk	06419-25 15.2 m (50 ft)/pk	06419-17 15.2 m (50 ft)/pk	06419-18 15.2 m (50 ft)/pk
TYGON lab (R-3603)	06409-13 15.2 m (50 ft)/pk	06409-14 15.2 m (50 ft)/pk	06409-16 15.2 m (50 ft)/pk	06409-25 15.2 m (50 ft)/pk	06409-17 15.2 m (50 ft)/pk	06409-18 15.2 m (50 ft)/pk
TYGON fuel and lubricant (F-4040-A)	06401-13 15.2 m (50 ft)/pk	06401-14 15.2 m (50 ft)/pk	06401-16 15.2 m (50 ft)/pk	06401-25 15.2 m (50 ft)/pk	06401-17 15.2 m (50 ft)/pk	06401-18 15.2 m (50 ft)/pk
PHARMED® (BPT)	06508-13 7.6 m (25 ft)/pk	06508-14 7.6 m (25 ft)/pk	06508-16 7.6 m (25 ft)/pk	06508-25 7.6 m (25 ft)/pk	06508-17 7.6 m (25 ft)/pk	06508-18 7.6 m (25 ft)/pk
NORPRENE® (A 60 G)	06404-13 15.2 m (50 ft)/pk	06404-14 15.2 m (50 ft)/pk	06404-16 15.2 m (50 ft)/pk	06404-25 15.2 m (50 ft)/pk	06404-17 15.2 m (50 ft)/pk	06404-18 15.2 m (50 ft)/pk
NORPRENE food (A 60 F)	06402-13 15.2 m (50 ft)/pk	06402-14 15.2 m (50 ft)/pk	06402-16 15.2 m (50 ft)/pk	06402-25 15.2 m (50 ft)/pk	06402-17 15.2 m (50 ft)/pk	06402-18 15.2 m (50 ft)/pk
VITON®	06412-13 7.6 m (25 ft)/pk	06412-14 7.6 m (25 ft)/pk	06412-16 7.6 m (25 ft)/pk	06412-25 7.6 m (25 ft)/pk	06412-17 7.6 m (25 ft)/pk	06412-18 7.6 m (25 ft)/pk
GORE™ Style 500® (Reinforced FFKM)	—	96210-14 0.3 m (1 ft)/pk	96210-16 0.3 m (1 ft)/pk	96210-25 0.3 m (1 ft)/pk	96210-17 0.3 m (1 ft)/pk	96210-18 0.3 m (1 ft)/pk
GORE Style 100SC® (Reinforced Silicone)	—	96200-14 0.3 m (1 ft)/pk	96200-16 0.3 m (1 ft)/pk	96200-25 0.3 m (1 ft)/pk	96200-17 0.3 m (1 ft)/pk	96200-18 0.3 m (1 ft)/pk
GORE Style 4000 (Reinforced VITON)	—	—	06439-16 0.4 m (14 in)/pk	—	—	—

\* Style 500 is not USP rated for USP rated material order 96212-XX STA-PURE (formerly known as CHEM-SURE) Series PFL.

\* Style 100SC is not USP rated for USP rated material order 96211-XX STA-PURE (formerly known as CHEM-SURE) Series PCS.

**Ordering Information**

Tubing Formulation	Masterflex P/S High-Performance Precision Pump Tubing Sizes			
	P/S 15	P/S 24	P/S 35	P/S 36
Silicone (platinum-cured)	96410-15 7.6 m (25 ft)/pk	96410-24 7.6 m (25 ft)/pk	96410-35 7.6 m (25 ft)/pk	96410-36 7.6 m (25 ft)/pk
Silicone (peroxide-cured)	96400-15 7.6 m (25 ft)/pk	96400-24 7.6 m (25 ft)/pk	96400-35 7.6 m (25 ft)/pk	96400-36 7.6 m (25 ft)/pk
BIOPHARM Plus silicone (platinum-cured)	96440-15 7.6 m (25 ft)/pk	96440-24 7.6 m (25 ft)/pk	96440-35 7.6 m (25 ft)/pk	96440-36 7.6 m (25 ft)/pk
C-FLEX® (50 A)	06424-15 7.6 m (25 ft)/pk	06424-24 7.6 m (25 ft)/pk	06424-35 7.6 m (25 ft)/pk	06424-36 7.6 m (25 ft)/pk
TYGON® LFL	06429-15 7.6 m (25 ft)/pk	06429-24 7.6 m (25 ft)/pk	06429-35 7.6 m (25 ft)/pk	06429-36 7.6 m (25 ft)/pk
TYGON food (B-44-4X)	06419-15 15.2 m (50 ft)/pk	06419-24 15.2 m (50 ft)/pk	06419-35 15.2 m (50 ft)/pk	06419-36 15.2 m (50 ft)/pk
TYGON lab (R-3603)	06409-15 15.2 m (50 ft)/pk	06409-24 15.2 m (50 ft)/pk	06409-35 15.2 m (50 ft)/pk	06409-36 15.2 m (50 ft)/pk
TYGON fuel & lubricant (F-4040-A)	06401-15 15.2 m (50 ft)/pk	06401-24 15.2 m (50 ft)/pk	06401-35 15.2 m (50 ft)/pk	06401-36 15.2 m (50 ft)/pk
PHARMED® (BPT)	06508-15 7.6 m (25 ft)/pk	06508-24 7.6 m (25 ft)/pk	06508-35 7.6 m (25 ft)/pk	06508-36 7.6 m (25 ft)/pk
NORPRENE® (A 60 G)	06404-15 15.2 m (50 ft)/pk	06404-24 15.2 m (50 ft)/pk	06404-35 15.2 m (50 ft)/pk	06404-36 15.2 m (50 ft)/pk
NORPRENE food (A 60 F)	06402-15 15.2 m (50 ft)/pk	06402-24 15.2 m (50 ft)/pk	06402-35 15.2 m (50 ft)/pk	06402-36 15.2 m (50 ft)/pk
VITON®	06412-15 7.6 m (25 ft)/pk	06412-24 7.6 m (25 ft)/pk	06412-35 7.6 m (25 ft)/pk	06412-36 7.6 m (25 ft)/pk
GORE™ Style 500 (Reinforced FFKM)	96210-15 0.3 m (1 ft)/pk	96210-24 0.3 m (1 ft)/pk	96210-35 0.3 m (1 ft)/pk	96210-36 0.3 m (1 ft)/pk
GORE Style 100 (Reinforced Silicone)	96200-15 0.3 m (1 ft)/pk	96200-24 0.3 m (1 ft)/pk	96200-35 0.3 m (1 ft)/pk	96200-36 0.3 m (1 ft)/pk
GORE Style 4000 (Reinforced VITON)	06439-15 0.4 m (14 in)/pk	06439-24 0.4 m (14 in)/pk	—	—