

## I/P® PRECISION PUMP TUBING

- ▶ Ensure optimal Masterflex® pump performance
- ▶ Custom extruded to fit Masterflex pumps
- ▶ Engineered for long life in peristaltic pumps
- ▶ Lot-to-lot consistency provides superior accuracy and repeatability

Masterflex I/P pump tubing is manufactured to extremely close tolerances that match our I/P pump heads, ensuring accurate, repeatable

flow and long tubing life. Our tubing is factory-tested and optically inspected to provide the best performance from your peristaltic pump.



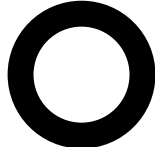
Our High-Performance Precision pump tubing features a thicker wall compared to our Precision pump tubing, making it the best choice for applications involving pressure, suction lift, viscous fluids, or long tubing life. See page 128 to order.

**MORE online!**

For help selecting the right Masterflex pump tubing formulation for your application, go to . . .

[ColeParmer.com/MasterflexTubing](http://ColeParmer.com/MasterflexTubing)




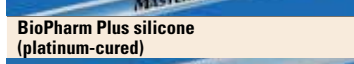
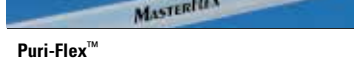




### SPECIFICATIONS

Pump tubing cross sections	I/P Precision pump tubing		
			
	I/P 26	I/P 73	I/P 82
Inside diameter (nominal)	6.4 mm (0.25")	9.5 mm (0.37")	12.7 mm (0.5")
Hose barb size (nominal)	6.4 mm (1/4")	9.5 mm (3/8")	12.7 mm (1/2")
Flow range (approximate) <sup>†</sup> with 1 to 650 rpm drive	0.01 to 4 LPM (0.002 to 1.1 GPM)	0.01 to 8 LPM (0.002 to 2.1 GPM)	0.02 to 13 LPM (0.005 to 3.5 GPM)
Maximum pressure <sup>‡</sup>	2.7 bar (40 psi)	2.7 bar (40 psi)	1.4 bar (20 psi)
Maximum vacuum <sup>†</sup>	660 mm Hg (26" Hg)	660 mm Hg (26" Hg)	510 mm Hg (20" Hg)
Suction lift <sup>†</sup>	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)	7.0 m H <sub>2</sub> O (23 ft H <sub>2</sub> O)

<sup>†</sup>Determined under the following conditions: 0 psi at inlet, 0.5 psi at outlet; water temperature at 22°C (72°F).

<sup>‡</sup>Actual performance varies depending on tubing formulation—values shown are for firm tubing. Value for GORE® pump tubing is 4.1 bar (60 psi) continuous.

### ORDERING INFORMATION



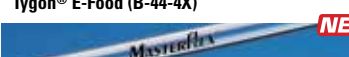
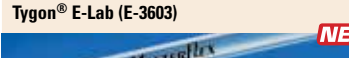
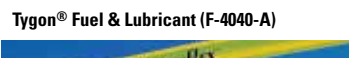

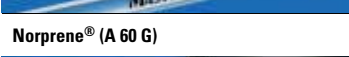





Pump tubing formulation	I/P Pump Head Compatibility		I/P 26	I/P 73	I/P 82
	Standard	Easy-Load®			
 Silicone (platinum-cured)	✓	✓	<b>HL-96410-26</b> 7.6 m (25 ft)/pk	<b>HL-96410-73</b> 7.6 m (25 ft)/pk	<b>HL-96410-82</b> 7.6 m (25 ft)/pk
 Silicone (peroxide-cured)	✓	✓	<b>HL-96400-26</b> 7.6 m (25 ft)/pk	<b>HL-96400-73</b> 7.6 m (25 ft)/pk	<b>HL-96400-82</b> 7.6 m (25 ft)/pk
 BioPharm silicone (platinum-cured)	✓	✓	<b>HL-96420-26</b> 7.6 m (25 ft)/pk	<b>HL-96420-73</b> 7.6 m (25 ft)/pk	<b>HL-96420-82</b> 7.6 m (25 ft)/pk
 BioPharm Plus silicone (platinum-cured)	✓	✓	<b>HL-96440-26</b> 7.6 m (25 ft)/pk	<b>HL-96440-73</b> 7.6 m (25 ft)/pk	<b>HL-96440-82</b> 7.6 m (25 ft)/pk
 Puri-Flex™	✓	✓	<b>HL-96419-26</b> 7.6 m (25 ft)/pk	<b>HL-96419-73</b> 7.6 m (25 ft)/pk	<b>HL-96419-82</b> 7.6 m (25 ft)/pk
 C-Flex®	✓	✓	<b>HL-06424-26</b> 7.6 m (25 ft)/pk	<b>HL-06424-73</b> 7.6 m (25 ft)/pk	<b>HL-06424-82</b> 7.6 m (25 ft)/pk
 C-Flex® ULTRA	✓	✓	<b>HL-06434-26</b> 7.6 m (25 ft)/pk	<b>HL-06434-73</b> 7.6 m (25 ft)/pk	<b>HL-06434-82</b> 7.6 m (25 ft)/pk
 PharMed® BPT	✓	✓	<b>HL-06508-26</b> 7.6 m (25 ft)/pk	<b>HL-06508-73</b> 7.6 m (25 ft)/pk	<b>HL-06508-82</b> 7.6 m (25 ft)/pk
 PharmaPure®		✓	<b>HL-06435-26</b> 7.6 m (25 ft)/pk	<b>HL-06435-73</b> 7.6 m (25 ft)/pk	<b>HL-06435-82</b> 7.6 m (25 ft)/pk



SEE PAGES 20 TO 24

For detailed formulation descriptions and specifications.

### ORDERING INFORMATION

Pump tubing formulation	I/P Pump Head Compatibility		I/P 26	I/P 73	I/P 82
	Standard	Easy-Load®			
Chem-Durance® Bio 		✓	HL-06442-26 15.2 m (50 ft)/pk	HL-06442-73 15.2 m (50 ft)/pk	HL-06442-82 15.2 m (50 ft)/pk
Tygon® E-LFL 	NEW ✓	✓	HL-06440-26 7.6 m (25 ft)/pk	HL-06440-73 7.6 m (25 ft)/pk	HL-06440-82 7.6 m (25 ft)/pk
Tygon® E-Food (B-44-4X) 	NEW ✓	✓	HL-06418-26 15.2 m (50 ft)/pk	HL-06418-73 15.2 m (50 ft)/pk	HL-06418-82 15.2 m (50 ft)/pk
Tygon® E-Lab (E-3603) 	NEW ✓	✓	HL-06509-26 15.2 m (50 ft)/pk	HL-06509-73 15.2 m (50 ft)/pk	HL-06509-82 15.2 m (50 ft)/pk
Tygon® Fuel & Lubricant (F-4040-A) 	✓	✓	—	HL-06401-73 15.2 m (50 ft)/pk	HL-06401-82 15.2 m (50 ft)/pk
Tygon® Chemical (2001) 		✓	HL-06475-26 15.2 m (50 ft)/pk	HL-06475-73 15.2 m (50 ft)/pk	HL-06475-82 15.2 m (50 ft)/pk
Norprene® (A 60 G) 	✓	✓	HL-06404-26 15.2 m (50 ft)/pk	HL-06404-73 15.2 m (50 ft)/pk	HL-06404-82 15.2 m (50 ft)/pk
Norprene® Food (A 60 F) 	✓	✓	HL-06402-26 15.2 m (50 ft)/pk	HL-06402-73 15.2 m (50 ft)/pk	HL-06402-82 15.2 m (50 ft)/pk
GORE® Style 100SC 	✓	✓	HL-96190-26 61 cm (24")/pk	HL-96190-73 61 cm (24")/pk	HL-96190-82 61 cm (24")/pk
GORE® Style 500 	✓	✓	HL-96191-26 61 cm (24")/pk	HL-96191-73 61 cm (24")/pk	HL-96191-82 61 cm (24")/pk
GORE® Style 400 	✓	✓	—	HL-06439-73 61 cm (24")/pk	—
Viton® 	✓	✓	HL-96412-26 7.6 m (25 ft)/pk	HL-96412-73 7.6 m (25 ft)/pk	—



### FILLER/DISPENSING NOZZLES

- ▶ Maximize the speed, precision, and accuracy of dispensing and filling applications
- ▶ Minimize splashing and dripping when dispensing into narrow- or wide-mouth containers
- ▶ Dimensional tolerances of ±0.05% for assured repeatability

These nozzles combine the ease of plastic components with the accuracy and reliability of stainless steel filler needles. Tight dimensional tolerances help to ensure precision in your dispensing applications. Nozzles feature a 316L stainless steel tube and a polycarbonate base with hose barb adapter. Materials comply with FDA, USDA and USP Class VI requirements. All filler nozzles are sterilizable by ethylene oxide, autoclaving, or gamma irradiation.


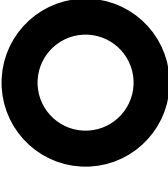
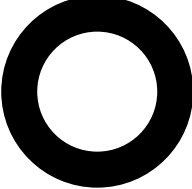
Catalog number	Tubing ID	Fits Masterflex® tubing sizes
HL-30619-06	1/32"	L/S® 13
HL-30619-01	1/16"	L/S 14
HL-30619-07	1/8"	L/S 16
HL-30619-02	3/16"	L/S 15, 25
HL-30619-08	1/4"	L/S 17, 24; I/P® 26
HL-30619-03	5/16"	L/S 35
HL-30619-09	3/8"	L/S 18, 36; I/P 70, 73; B/T® 86
HL-30619-04	1/2"	I/P 82, 88; B/T 87
HL-30619-10	5/8"	I/P 89
HL-30619-05	3/4"	B/T 91



## I/P® HIGH-PERFORMANCE PRECISION PUMP TUBING

Our High-Performance Precision pump tubing features a thicker wall compared to our Precision pump tubing, making it the best choice for applications involving pressure, suction lift, viscous fluids, or long tubing life.

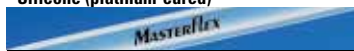

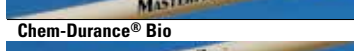





### SPECIFICATIONS

Pump tubing cross sections	I/P High-performance Precision pump tubing		
			
	I/P 70	I/P 88	I/P 89
Inside diameter (nominal)	9.5 mm (0.37")	12.7 mm (0.5")	15.88 mm (0.62")
Hose barb size (nominal)	9.5 mm (3/8")	12.7 mm (1/2")	15.88 mm (5/8")
Flow range (approximate) <sup>†</sup> with 1 to 650 rpm drive	0.01 to 8 LPM (0.002 to 2.1 GPM)	0.02 to 17 LPM (0.005 to 4.5 GPM)	0.03 to 19 LPM (0.007 to 5.0 GPM)
Maximum pressure <sup>‡</sup>	2.7 bar (40 psi)	2.4 bar (35 psi)	1.4 bar (20 psi)
Maximum vacuum <sup>‡</sup>	660 mm Hg (26" Hg)	660 mm Hg (26" Hg)	610 mm Hg (24" Hg)
Suction lift <sup>‡</sup>	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)	8.2 m H <sub>2</sub> O (27 ft H <sub>2</sub> O)

<sup>†</sup>Determined under the following conditions: 0 psi at inlet, 0.5 psi at outlet; water temperature at 22°C (72°F).

<sup>‡</sup>Actual performance varies depending on tubing formulation—values shown are for firm tubing.

### ORDERING INFORMATION

Pump tubing formulation	I/P Pump Head Compatibility			
	High-Performance	I/P 70	I/P 88	I/P 89
Silicone (platinum-cured)	✓	—	HL-96510-88 3.0 m (10 ft)/pk	HL-96510-89 3.0 m (10 ft)/pk
 BioPharm silicone (platinum-cured)	✓	HL-96421-70 3.0 m (10 ft)/pk	HL-96421-88 3.0 m (10 ft)/pk	HL-96421-89 3.0 m (10 ft)/pk
 BioPharm Plus silicone (platinum-cured)	✓	HL-96441-70 3.0 m (10 ft)/pk	HL-96441-88 3.0 m (10 ft)/pk	HL-96441-89 3.0 m (10 ft)/pk
 Puri-Flex™	✓	HL-96419-70 3.0 m (10 ft)/pk	HL-96419-88 3.0 m (10 ft)/pk	HL-96419-89 3.0 m (10 ft)/pk
 C-Flex®	✓	HL-06424-70 3.0 m (10 ft)/pk	HL-06424-88 3.0 m (10 ft)/pk	HL-06424-89 3.0 m (10 ft)/pk
 PharMed® BPT	✓	HL-06508-70 7.6 m (25 ft)/pk	HL-06508-88 7.6 m (25 ft)/pk	—
 Chem-Durance® Bio	✓	HL-06442-70 7.6 m (25 ft)/pk	HL-06442-88 7.6 m (25 ft)/pk	HL-06442-89 7.6 m (25 ft)/pk
 Tygon® E-LFL <b>NEW</b>	✓	HL-06440-70 7.6 m (25 ft)/pk	HL-06440-88 7.6 m (25 ft)/pk	HL-06440-89 7.6 m (25 ft)/pk
 Tygon® E-Food (B44-4X) <b>NEW</b>	✓	HL-06418-70 15.2 m (50 ft)/pk	HL-06418-88 15.2 m (50 ft)/pk	HL-06418-89 15.2 m (50 ft)/pk
 Tygon® E-Lab (E-3603) <b>NEW</b>	✓	HL-06509-70 15.2 m (50 ft)/pk	HL-06509-88 15.2 m (50 ft)/pk	HL-06509-89 15.2 m (50 ft)/pk
 Norprene® (A 60 G)	✓	HL-06404-70 7.6 m (25 ft)/pk	HL-06404-88 7.6 m (25 ft)/pk	HL-06404-89 7.6 m (25 ft)/pk
 Norprene® Food (A 60 F)	✓	—	HL-06402-88 7.6 m (25 ft)/pk	HL-06402-89 7.6 m (25 ft)/pk
 GORE® Style 100SC	✓	—	HL-96190-88 61 cm (24")/pk	HL-96190-89 61 cm (24")/pk
 GORE® Style 500	✓	—	HL-96191-88 61 cm (24")/pk	HL-96191-89 61 cm (24")/pk
 GORE® Style 400	✓	—	HL-06439-88 61 cm (24")/pk	—