

Masterflex® and Ismatec® Pump Tubing Formulations

Puri-Flex® Tubing

- Heat sealable and weldable
- Longest pump life when compared to silicone or many other TPE tubings
- Lowest spallation when compared to silicone or many other TPE tubings
- Ideal for sensitive cell work

Puri-Prene™ Tubing

- Long pump life; less drift over time for more accurate pumping
- Withstands repeated sterilization cycles but also suitable for single use

- Ideal for pharmaceutical, bioprocess, and critical process applications

Puri-Clear® LL Tubing





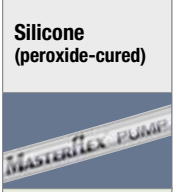


- Excellent chemical compatibility
- Optically clear to make fluid ID easier
- High elastic memory material handles viscous materials and holds a vacuum well
- Ideal for biologics, pharmaceuticals, and other aseptic industries

Platinum-Cured Silicone Tubing

- Slightly greater clarity
- Smooth surface; lower protein binding levels
- Fewer potential leachables
- Ideal for pharmaceutical and biotechnology use

Peroxide-Cured Silicone Tubing

- Greater physical compression capability
- Economical, longer tubing life
- Potential outgassing of peroxide products

Pump tubing formulation	Advantages	Meets classifications	Application suitability†								Gas permeability	Sterilization
			Acids	Alkalies	Organic solvents	Pressure	Vacuum	Viscous fluids	Sterile fluids			
 Puri-Flex® Exclusive	Biocompatible. Heat sealable and weldable. Long pump life when compared to silicone or other TPE tubings. Low spallation when compared to silicone or some other TPE tubings. Very low protein binding. Cost effective. No halogens or phthalates. Translucent, clear to light white.	USP Class VI FDA 21 CFR 177.2600 and 177.1810 REACH (non-DEHP) compliant RoHS compliant ADCF compliant	G	G	N/R	G	G	E	E	CO ₂ : 1200 H ₂ : — O ₂ : 200 N ₂ : 80	Sterilize by EtO, autoclave up to 135°C (275°F), or gamma irradiation up to 4.5 Mrad.	
Temperature range: Static: -50 to 135°C (-58 to 275°F) Dynamic (pumping): -30 to 100°C (-22 to 212°F)												
 Puri-Prene™ Exclusive	Excellent biocompatibility; long pump life. Withstands repeated sterilization cycles. Nontoxic, nonhemolytic, extremely low permeability, Resists acids, bases, and oxidizing agents. Heat sealable, bondable, formable. Opaque, beige.	USP Class VI REACH (non-DEHP) compliant RoHS compliant ADCF compliant	G	G	N/R	G	G	E	E	CO ₂ : 1200 H ₂ : — O ₂ : 200 N ₂ : 80	Sterilize by EtO, autoclave, or gamma irradiation.	
Temperature range: Static: -51 to 132°C (-60 to 270°F) Dynamic (pumping): -20 to 100°C (-4 to 212°F)												
 Puri-Clear® LL Exclusive	Clear for easy flow monitoring. Broad chemical resistance. Nontoxic, nonaging, nonoxidizing. Low gas permeability. Smooth bore. High dielectric constant. Transparent, clear.	USP Class VI REACH (non-DEHP) compliant RoHS compliant ADCF compliant	G	G	N/R	G	G	E	G	CO ₂ : 560 H ₂ : — O ₂ : 120 N ₂ : 60	Sterilize by EtO, autoclave, or gamma irradiation.	
Temperature range: Static: -45 to 74°C (-51 to 165°F) Dynamic (pumping): 0 to 40°C (32 to 104°F)												
 Silicone (platinum-cured) Exclusive	Excellent biocompatibility. No leachable additives, DOP, or plasticizers; phthalate and latex-free; odorless and nontoxic, fungus-resistant. No taste imparted to transported fluids. Weather, ozone, corona, and radiation resistant. Minimal tendency to take a set. Translucent, clear to light amber.	USP Class V Extractables (Exceeds Class VI Implant) European Pharmacopoeia (EP 3.1.9) FDA 21 CFR 177.2600; FDA 21 CFR 210 and 211; Exceeds 3A sanitary standards REACH (non-DEHP) compliant RoHS compliant ADCF compliant	N/R	N/R	N/R	F	G	F	E	CO ₂ : 20,132 H ₂ : 6579 O ₂ : 7961 N ₂ : 2763	Sterilize by EtO, autoclave, or gamma irradiation.	
Temperature range: Static: -50 to 230°C (-58 to 446°F) Dynamic (pumping): -40 to 100°C (-40 to 212°F)												
 Silicone (peroxide-cured)	Excellent biocompatibility. No additives, plasticizers or DOP; odorless and nontoxic, fungus-resistant. No taste imparted to transported fluids. Weather, ozone, corona, and radiation resistant. Minimal tendency to take a set. Translucent, clear to light amber.	USP Class VI European Pharmacopoeia (EP 3.1.9) FDA 21 CFR 177.2600 Exceeds 3A sanitary standards REACH (non-DEHP) compliant RoHS compliant ADCF compliant	N/R	N/R	N/R	F	G	F	E	CO ₂ : 20,132 H ₂ : 6579 O ₂ : 7961 N ₂ : 2763	Sterilize by EtO or autoclave.	
Temperature range: Static: -50 to 230°C (-58 to 446°F) Dynamic (pumping): -40 to 100°C (-40 to 212°F)												
 BioPharm Silicone (platinum-cured) Exclusive	Ultra-smooth inner surface minimizes particle entrapment. Lower absorption; excellent biocompatibility; no leachable additive, DOP, or plasticizers. Very low extractables. Odorless and nontoxic, fungus-resistant. No taste imparted to transported fluids. Weather, ozone, corona, and radiation resistant. Translucent, clear to light amber.	USP Class VI European Pharmacopoeia (EP 3.1.9) FDA 21 CFR 177.2600 Exceeds 3A sanitary standards REACH (non-DEHP) compliant RoHS compliant	N/R	N/R	N/R	F	G	F	E	CO ₂ : 25,147 H ₂ : — O ₂ : 4715 N ₂ : 2284	Sterilize by EtO, autoclave, or gamma irradiation.	
Temperature range: Static: -60 to 232°C (-75 to 450°F) Dynamic (pumping): -40 to 100°C (-40 to 212°F)												
 BioPharm Plus Silicone (platinum-cured) Exclusive	Similar to BioPharm Silicone, plus: Longest life of any silicone pump tubing. Lower spallation than regular silicone. Enhanced pressure capability. Fungus resistant. Nontoxic, no leachable plasticizers. Lower gas permeability than other silicones. Translucent, clear to light amber.	USP Class VI European Pharmacopoeia (EP 3.1.9) FDA 21 CFR 177.2600 Exceeds 3A sanitary standards REACH (non-DEHP) compliant RoHS compliant	N/R	N/R	N/R	F	G	F	E	CO ₂ : 25,147 H ₂ : — O ₂ : 4715 N ₂ : 2284	Sterilize by EtO, autoclave, or gamma irradiation.	
Temperature range: Static: -60 to 232°C (-75 to 450°F) Dynamic (pumping): -40 to 100°C (-40 to 212°F)												

†E = Excellent, G = Good, F = Fair, P = Poor, N/R = not recommended, N/A = not available

Masterflex® and Ismatec® Pump Tubing Formulations

BioPharm Silicone Tubing (platinum-cured)

- Ultra-smooth inner surface minimizes particle entrapment
- Very low extractables, with documented biocompatibility for sensitive applications
- Ideal for lab, biotech, and pharmaceutical applications

BioPharm Plus Silicone Tubing (platinum-cured)

- All of the benefits of BioPharm silicone tubing, plus:

- Longest tubing life of any silicone pump tubing
- Lower spallation than regular silicone
- Enhanced pressure capability

C-Flex® ULTRA Tubing

- Combines biocompatibility of silicone with chemical resistance similar to Tygon
- Heat sealable, weldable, economical
- Longest pump life of any C-Flex formulation
- Lowest spallation and reduced residue

C-Flex® Tubing

- Combines biocompatibility of silicone with chemical resistance similar to Tygon
- Heat sealable, weldable, economical

PharMed® BPT Tubing





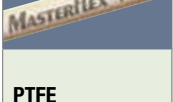
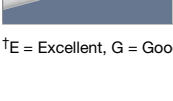
- Up to 10,000 hours of tubing life
- Resists ozone and UV radiation
- Noncytotoxic and nonhemolytic
- Ideal for tissue and cell culture
- Heat sealable and bondable

PharmaPure® Tubing

- Biocompatibility similar to PharMed BPT
- Long life under continuous pressure up to 40 psi (2.7 bar)
- Very low spallation and low extractables

Chem-Durance® Bio Tubing

- Excellent chemical resistance
- Excellent pumping life
- Low spallation
- USP Class VI specifications
- Masterflex exclusive

Pump tubing formulation	Advantages	Meets classifications	Application suitability†								Gas permeability	Sterilization
			Acids	Alkalies	Organic solvents	Pressure	Vacuum	Viscous fluids	Sterile fluids			
 C-Flex® ULTRA	Physical properties similar to silicone with chemical compatibility of Tygon®. Biocompatible. Heat sealable and weldable. Longer pump life and lower spallation than C-Flex. Translucent.	USP Class VI European Pharmacopoeia (EP 3.2.9) REACH (non-DEHP) compliant RoHS compliant ADCF compliant	G	G	N/R	F	G	F	E	CO ₂ : 2.1 H ₂ : — O ₂ : 1.1 N ₂ : 3.4	Sterilize by gamma irradiation or one cycle of autoclave at 121°C (250°F), 1 bar (15 psi) for 30 minutes.	
Temperature range: Static: -45 to 121°C (-50 to 250°F) Dynamic (pumping): -40 to 100°C (-40 to 212°F)												
 C-Flex®	Physical properties similar to silicone with chemical compatibility of Tygon®. Inexpensive. Biocompatible. Heat sealable and weldable. Opaque, white.	USP Class VI European Pharmacopoeia (EP 3.2.9) REACH (non-DEHP) compliant RoHS compliant ADCF compliant	G	G	N/R	F	G	F	E	CO ₂ : — H ₂ : — O ₂ : 150 N ₂ : —	Sterilize by EtO, autoclave, or gamma irradiation.	
Temperature range: Static: -45 to 121°C (-50 to 250°F) Dynamic (pumping): -40 to 100°C (-40 to 212°F)												
 PharMed® BPT	Great for tissue and cell work—nontoxic and nonhemolytic. Long service life (up to 10,000 hrs); reduces tubing costs and pump downtime. Opaque to UV and visible light to protect light-sensitive fluids. Low gas permeability. High-pressure 10.2 bar (150 psi) version available. Opaque, beige	USP Class VI European Pharmacopoeia (EP 3.2.9) FDA 21 CFR 177.2600 REACH (non-DEHP) compliant RoHS compliant	G	G	N/R	G	G	E	E	CO ₂ : 1200 H ₂ : — O ₂ : 200 N ₂ : 80	Sterilize by EtO, autoclave, or gamma irradiation up to 2.5 Mrad.	
Temperature range: Static: -51 to 132°C (-60 to 270°F) Dynamic (pumping): -20 to 100°C (-4 to 212°F)												
 PharmaPure®	Nontoxic and nonhemolytic (similar to PharMed® BPT); biocompatible. Long life even under pressure; up to 1000 hours at 2.7 bar (40 psi). Very low spallation—protects fluid purity. Low extractables. Low gas permeability. Opaque, off-white.	USP Class VI FDA 21 CFR 177.2600 European Pharmacopoeia (EP 3.2.9) REACH (non-DEHP) compliant RoHS compliant	G	G	N/R	G	G	E	E	CO ₂ : 1200 H ₂ : — O ₂ : 200 N ₂ : 80	Sterilize by EtO, autoclave, or gamma irradiation up to 2.5 Mrad.	
Temperature range: Static: -51 to 132°C (-60 to 270°F) Dynamic (pumping): -20 to 100°C (-4 to 212°F)												
 Chem-Durance® Bio	Excellent chemical resistance. Excellent life and durability under pressure. Low spallation. Plasticizer-free inner liner. High dielectric constant. Excellent biocompatibility. Opaque, beige.	USP Class VI FDA 21 CFR 177.2600 REACH (non-DEHP) compliant RoHS compliant	E	E	G	E	E	E	E	CO ₂ : 745 H ₂ : — O ₂ : 200 N ₂ : 80	Sterilize by EtO, autoclave, or gamma irradiation.	
Temperature range: Static: -60 to 74°C (-71 to 165°F) Dynamic (pumping): 0 to 40°C (32 to 104°F)												
 PTFE	Chemically inert. Excellent chemical resistance. Will not leach into or absorb out of fluid being pumped. Extremely low gas permeability. Nontoxic. Virtually nonporous. Low coefficient of friction. Translucent, white.	USP Class VI REACH (non-DEHP) compliant RoHS compliant ADCF compliant	E	E	E	G	G	E	G	CO ₂ : 6.8 H ₂ : — O ₂ : — N ₂ : 1.0	Sterilize by EtO or autoclave.	
Temperature range: Static: -240 to 260°C (-400 to 500°F) Dynamic (pumping): -40 to 150°C (-40 to 302°F)												

†E = Excellent, G = Good, F = Fair, P = Poor, N/R = not recommended, N/A = not available

Masterflex® and Ismatec® Pump Tubing Formulations

PTFE Tubing

- Chemically inert; best chemical resistance of any pump tubing
- Sold in molded pump tubing elements
- Use with PTFE tubing pump head

Tygon® E-LFL Tubing

- Longest tubing life of all Tygon tubing formulations
- Broad chemical compatibility
- Low gas permeability
- Approved for pharmaceutical and biotechnology use

Tygon® E-Food Tubing

- Meets various food and sanitary regulations
- Unaffected by common commercial sanitizers
- Nonwetting properties allow flush-cleaning and complete drainage
- Smooth inner surface

Tygon® E-Lab Tubing

- Ideal for general transfer applications
- Economical
- Nontoxic, nonaging, and nonoxidizing

Versilon™ 2001 Tubing (formerly Tygon® Chemical)

- Best chemical resistance of Tygon formulations
- Compatible with some organics
- Plasticizer-free

Tygon® F-4040-A Fuel & Lubricant Tubing

- Ideal for transferring hydrocarbons, gasoline, kerosene, heating oils, cutting compounds, and glycol-based coolants
- Not for use with concentrated strong acids or alkalies

Versilon™ A-60-N Tubing (formerly Norprene®)

- Up to 10,000 hours of tubing life
- Best choice for pressure/vacuum applications
- Resists heat, ozone, acids, and alkalies
- Heat sealable and bondable
- Nonaging, nonoxidizing

Pump tubing formulation	Advantages	Meets classifications	Application suitability†								Gas permeability	Sterilization
			Acids	Alkalies	Organic solvents	Pressure	Vacuum	Viscous fluids	Sterile fluids			
Tygon® E-LFL	Longest life of all Tygon® peristaltic tubing. Clear for easy flow monitoring. Broad chemical resistance. Nonaging, nonoxidizing. Low gas permeability. Smooth bore. Good for viscous fluids. High dielectric constant. Transparent, clear.	USP Class VI European Pharmacopia (EP 3.2.9) FDA 21 CFR 175.300 EU Food REACH (non-DEHP) compliant RoHS compliant ADCF compliant	G	G	N/R	G	G	E	G	Temperature range: Static: -46 to 74°C (-51 to 165°F) Dynamic (pumping): 0 to 40°C (32 to 104°F)	CO ₂ : 563 H ₂ : — O ₂ : 124 N ₂ : 67	Sterilize by EtO or autoclave.
Tygon® E-Food (B-44-4X)	Designed especially for handling food products. Bore is extremely smooth (better than most stainless steels) Nontoxic, will not affect taste or odor, and clear for CIP and flow verification. Excellent nonwetting properties permit flush cleaning and complete drainage. High dielectric constant. Transparent, clear.	FDA 21 CFR 175.300 EU Food NSF-51 REACH (non-DEHP) compliant RoHS compliant ADCF compliant Meets 3A sanitary standards	G	G	N/R	G	G	E	F		CO ₂ : 270 H ₂ : 97 O ₂ : 60 N ₂ : 30	
Tygon® E-Lab (E-3603)	Inexpensive tubing for general laboratory applications. Clear for easy flow monitoring. Handles virtually all inorganic chemicals. Nonaging, nonoxidizing. Low gas permeability. Good for viscous fluids. High dielectric constant. Transparent, clear.	USP Class VI FDA 21 CFR 175.300 EU Food NSF-51 REACH (non-DEHP) compliant RoHS compliant ADCF compliant	G	G	N/R	G	G	E	P	Temperature range: Static: -46 to 74°C (-51 to 165°F) Dynamic (pumping): 0 to 40°C (32 to 104°F)	CO ₂ : 360 H ₂ : 97 O ₂ : 80 N ₂ : 40	Sterilize by EtO or autoclave.
Versilon™ 2001 (formerly Tygon Chemical)	Best chemical resistance of any Tygon® formulation. Compatible with many polar solvents. Plasticizer-free. Clear for easy flow monitoring. Low extractability. Low gas permeability. High dielectric constant. Transparent, clear.	FDA 21 CFR 175.300 REACH (non-DEHP) compliant RoHS compliant ADCF compliant	E	E	G	G	G	E	G	Temperature range: Static: -77 to 57°C (-108 to 135°F) Dynamic (pumping): 0 to 40°C (32 to 104°F)	CO ₂ : 114 H ₂ : — O ₂ : 19 N ₂ : 9	
Tygon® Fuel & Lubricant (F-4040-A)	Specially formulated to transport hydrocarbons, petroleum products, and distillates. Suitable for gasoline, kerosene, heating oils, cutting fluids, and glycol-based coolants. Minimum extractability. Low gas permeability. High dielectric constant. Transparent, yellow.	REACH (non-DEHP) compliant RoHS compliant ADCF compliant	G	G	N/R	G	G	E	P	Temperature range: Static: -37 to 74°C (-35 to 165°F) Dynamic (pumping): 0 to 40°C (32 to 104°F)	CO ₂ : 100 H ₂ : 97 O ₂ : 22 N ₂ : 12	Sterilization is not recommended.

†E = Excellent, G = Good, F = Fair, P = Poor, N/R = not recommended, N/A = not available

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Sterilization

Ethylene oxide (EtO): Coil tubing loosely in nonlinting cloth or sterilization paper. Follow the sterilization equipment manufacturer's directions as to gas type, concentration, times, and temperatures; maintain humidity within the prescribed limits, generally between 30 to 65%.

Standard gravity autoclave: Coil tubing loosely in nonlinting cloth or sterilization paper, and place in a clean, open tray for 30 minutes at 121°C (250°F) at 1 kg/cm² (15 psi); air dry at max 66°C (150°F) for 2 to 2½ hours until clear.

Masterflex® and Ismatec® Pump Tubing Formulations

Tygon® A-60-F Food & Beverage Tubing

(formerly Norprene® Food)

- Ideal for high-temperature food and beverage applications
- Similar characteristics as Versilon™ 2001 tubing
- Meets FDA and NSF standards

GORE® STA-PURE® Pump Tubing – Series PCS

- Unique composite of expanded PTFE and platinum-cured silicone

- Stable flow rates achievable up to 100 psig*

- No raw materials of animal origin

GORE® STA-PURE® Pump Tubing – Series PFL

- Unique composite of expanded PTFE and platinum-cured perfluoroelastomer
- Greater chemical resistance than Series PCS
- Stable flow rates achievable up to 60 psig*
- No raw materials of animal origin



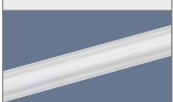



Viton® FDA-Compliant Tubing

- Excellent chemical resistance
- Resists corrosives, solvents, and oils at elevated temperatures

Solva™ Tubing

- Resists embrittlement and swelling due to hydrocarbon exposure
- Specially formulated to transport hydrocarbons, petroleum products, and distillates
- Ideal for fuels and industrial lubricants such as gasoline, kerosene, heating oils, cutting compounds, and glycol-based coolants

*Actual performance depends on the specific system in which the tubing is used and may vary depending on the pump and its integration into the system.

Pump tubing formulation	Advantages	Meets classifications	Application suitability†							Gas permeability	Sterilization
			Acids	Alkalies	Organic solvents	Pressure	Vacuum	Viscous fluids	Sterile fluids		
Versilon™ A-60-N (formerly Norprene) 	Best choice for vacuum/pressure applications. Offers longest pump tubing life. Heat, ambient ozone resistant. Good resistance to acids/alkalies. Heat sealable, nonaging, and nonoxidizing. High dielectric constant. High-pressure version available. Opaque, black.	NSF-51 REACH (non-DEHP) compliant RoHS compliant	G	G	N/R	E	E	E	N/R	CO ₂ : 1200 H ₂ : — O ₂ : 200 N ₂ : 80	Sterilize by EtO, autoclave, or gamma irradiation.
Tygon® A-60-F (formerly Norprene Food) 	Similar to Norprene® but with FDA approval. Excellent for food/dairy applications. Longest life, good flow consistency. Heat and ozone resistant. Good resistance to acids/alkalies. Heat sealable, nonaging, and nonoxidizing. High dielectric constant. Opaque, beige.	FDA 21 CFR 177.2600 NSF-51 REACH (non-DEHP) compliant RoHS compliant	G	G	N/R	E	E	E	G	CO ₂ : 1200 H ₂ : — O ₂ : 200 N ₂ : 80	Sterilize by EtO, autoclave, or gamma irradiation.
GORE® STA-PURE®, Series PCS 	Unique composite structure adds strength and flex durability. Greater security against rupture up to 100 psig*. Consistent flow rate over long duration of use. Withstands rigors of CIP/SIP processing	USP Class VI USP <87> USP Physicochemical Tests Compliant with restricted substances per REACH and RoHS No raw materials of animal origin	N/R	N/R	N/R	E	G	G	E	—	Sterilize by autoclave or SIP (steam in place).
GORE® STA-PURE®, Series PFL 	Unique composite structure adds strength and flex durability. Greater chemical resistance than Series PCS. Stable flow rates achievable to 60 psig*. Withstands rigors of CIP/SIP processing	USP Class VI USP <87> USP Physicochemical Tests Compliant with restricted substances per REACH and RoHS No raw materials of animal origin	E	E	E	E	G	G	E	—	Sterilize by autoclave or SIP (steam in place).
Viton® FDA-Compliant 	Perfect for food and lab applications where FDA compliance is required. Excellent chemical resistance. Resistant to corrosives, solvents, and oils at elevated temperatures. Low gas permeability. Opaque, black.	FDA 21 CFR 177.2600 ADCF compliant	E	E	Variable—test before using	G	G	G	F	CO ₂ : 76 to 79 H ₂ : — O ₂ : 13 to 15 N ₂ : 4.3	Sterilization is not recommended.
Solva™ 	Resists most hydrocarbons, embrittlement, and swelling. Thermoplastic, PVC-based material with plasticizer, firm (stiff) material. Ozone- and UV-resistant, minimal extractability. Low gas permeability. High dielectric constant. Transparent, yellow.	Compliant with restricted substances per REACH and RoHS No raw materials of animal origin	G	G	N/R	G	G	E	F	CO ₂ : 100 H ₂ : 97 O ₂ : 22 N ₂ : 12	N/A

†E = Excellent, G = Good, F = Fair, P = Poor, N/R = not recommended, N/A = not available

Exclusive

ISMATEC® Pump Tubing

- Color-coded stops provide easy identification
- Precision extruded to tight tolerances for high repeatability, accuracy and reproducibility
- Extension tubing can be connected with barbed fittings or by splicing
- Flared ends are available
- **How to Order:** Choose a tubing material to determine the catalog number prefix, then find your desired tube ID to determine the suffix. Combine the two for a complete catalog number (e.g. 96518-10).

Tubing		Length	Qty/pk	Ismatec size												
				Tube ID (mm)	09	10	12	14	18	22	24	26	28	30		
				Color ID*	O/BK	O/R	O/B	O/G	O/Y	O/W	BK/BK	O/O	W/W	R/R		
Puri-Flex®	2-stop	40.6 cm (16")	12	96518-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	3-stop	40.6 cm (16")	12	96519-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Extension	15.2 m (50 ft)	1	96418-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
Puri-Prene™	2-stop	40.6 cm (16")	12	05635-XX	—	—	-12	-14	-18	-22	-24	-26	-28	-30		
	3-stop	40.6 cm (16")	12	05636-XX	—	—	-12	-14	-18	-22	-24	-26	-28	-30		
	Extension	15.2 m (50 ft)	1	05367-XX	—	—	-12	-14	-18	-22	-24	-26	-28	-30		
Puri-Clear® LL	2-stop	40.6 cm (16")	12	95663-XX	-09	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	3-stop	40.6 cm (16")	12	95625-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Extension	15.2 m (50 ft)	1	95679-XX	-09	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Flared, 2-stop	40.6 cm (16")	12	97616-XX	-09	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Flared, 3-stop	40.6 cm (16")	12	97617-XX	—	-10	-12	-14	-18	—	—	-26	-28	-30		
Silicone (platinum-cured)	2-stop	40.6 cm (16")	6	95402-XX	—	—	—	—	—	-22	-24	-26	-28	-30		
	3-stop	40.6 cm (16")	6	95403-XX	—	—	—	—	—	-22	-24	-26	-28	-30		
	Extension	15.2 m (50 ft)	1	95412-XX	—	—	—	—	—	-22	-24	-26	-28	-30		
Silicone (peroxide-cured)	2-stop	40.6 cm (16")	6	07616-XX	—	—	-12	-14	-18	-22	-24	-26	-28	-30		
	3-stop	40.6 cm (16")	6	07624-XX	—	—	—	—	-18	-22	-24	-26	-28	-30		
	Extension	15.2 m (50 ft)	1	07625-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
C-Flex®	Extension	15.2 m (50 ft)	1	95718-XX	—	-10	-12	—	-18	—	—	-26	—	-30		
PharMed® BPT	2-stop	40.6 cm (16")	12	95723-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	3-stop	40.6 cm (16")	12	95714-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Extension	30.4 m (100 ft)	1	95809-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
PharMed® BPT, Autoclavable	2-stop	40.6 cm (16")	6	95692-XX	—	—	-12	—	-18	—	—	-26	-28	—		
	3-stop	40.6 cm (16")	6	95693-XX	—	—	-12	—	-18	—	—	-26	-28	—		
Chem-Durance® Bio	2-stop	40.6 cm (16")	6	96327-XX	—	—	—	-14	-18	—	-24	-26	—	-30		
	3-stop	40.6 cm (16")	6	96328-XX	—	—	—	-14	-18	—	-24	-26	—	-30		
	Extension	30.4 m (100 ft)	1	96329-XX	—	—	—	-14	-18	—	-24	-26	—	-30		
Tygon® E-LFL	2-stop	40.6 cm (16")	12	96449-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	3-stop	40.6 cm (16")	12	96450-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Extension	30.4 m (100 ft)	1	06449-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
Tygon® E-Food (B-44-4X)	2-stop	40.6 cm (16")	12	96457-XX	—	-10	-12	—	-18	—	—	-26	—	-30		
	3-stop	40.6 cm (16")	12	96458-XX	—	—	-12	—	-18	—	—	-26	—	-30		
	Extension	30.4 m (100 ft)	1	06457-XX	—	-10	-12	—	-18	—	—	-26	—	-30		
Tygon® E-Lab (E-3603)	2-stop	40.6 cm (16")	12	96460-XX	-09	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	3-stop	40.6 cm (16")	12	96461-XX	-09	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Extension	30.4 m (100 ft)	1	06460-XX	-09	-10	-12	-14	-18	-22	-24	-26	-28	-30		
Versilon™ 2001 (formerly Tygon Chemical)	2-stop	40.6 cm (16")	6	96465-XX	—	—	—	-14	—	-22	—	—	-28	—		
	3-stop	40.6 cm (16")	6	96466-XX	—	—	—	-14	—	-22	—	—	-28	—		
	Extension	10.1 m (33 ft)	1	96467-XX	—	—	—	-14	—	-22	—	—	-28	—		
Viton® FDA-Compliant	2-stop	30.5 cm (12")	12	97628-XX	—	—	—	—	-18	-22	-24	-26	-28	-30		
	3-stop	30.5 cm (12")	12	97629-XX	—	—	—	—	-18	-22	-24	-26	-28	-30		
	Extension	15.2 m (50 ft)	1	97632-XX	—	—	—	—	-18	-22	-24	-26	-28	-30		
Solva™	2-stop	40.6 cm (16")	12	95606-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	3-stop	40.6 cm (16")	12	95605-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Extension	15.2 m (50 ft)	1	95712-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Flared, 2-stop	40.6 cm (16")	12	95598-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		
	Flared, 3-stop	40.6 cm (16")	12	95599-XX	—	-10	-12	-14	-18	-22	-24	-26	-28	-30		

*Color ID key: B = blue, BK = black, G = green, GY = gray, O = orange, P = purple, R = red, W = white, Y = yellow

More sizes on next page

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ISMATEC® Pump Tubing

- Color-coded stops provide easy identification
- Precision extruded to tight tolerances for high repeatability, accuracy and reproducibility
- Extension tubing can be connected with barbed fittings or by splicing
- Flared ends are available
- **How to Order:** Choose a tubing material to determine the catalog number prefix, then find your desired tube ID to determine the suffix. Combine the two for a complete catalog number (e.g. 96518-10).

				Ismatec size	32	34	36	38	40	42	44	48	49
				Tube ID (mm)	1.3	1.42	1.52	1.65	1.85	2.06	2.29	2.79	3.17
Tubing		Length	Qty/pk	Color ID*	GY/GY	Y/Y	Y/B	B/B	G/G	P/P	P/BK	P/W	BK/W
Puri-Flex®	2-stop	40.6 cm (16")	12	96518-XX	-32	-34	-36	-38	—	-42	-44	-48	—
	3-stop	40.6 cm (16")	12	96519-XX	-32	-34	-36	-38	—	-42	-44	-48	—
	Extension	15.2 m (50 ft)	1	96418-XX	-32	-34	-36	-38	—	-42	-44	-48	—
Puri-Prene™	2-stop	40.6 cm (16")	12	05635-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	3-stop	40.6 cm (16")	12	05636-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	Extension	15.2 m (50 ft)	1	05367-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
Puri-Clear® LL	2-stop	40.6 cm (16")	12	95663-XX	-32	-34	-36	-38	-40	-42	-44	-48	-49
	3-stop	40.6 cm (16")	12	95625-XX	-32	-34	-36	-38	-40	-42	-44	—	—
	Extension	15.2 m (50 ft)	1	95679-XX	-32	-34	-36	-38	-40	-42	-44	—	—
	Flared, 2-stop	40.6 cm (16")	12	97616-XX	—	—	—	—	—	—	—	—	—
	Flared, 3-stop	40.6 cm (16")	12	97617-XX	—	—	—	—	—	—	—	—	—
Silicone (platinum-cured)	2-stop	40.6 cm (16")	6	95402-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	3-stop	40.6 cm (16")	6	95403-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	Extension	15.2 m (50 ft)	1	95412-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
Silicone (peroxide-cured)	2-stop	40.6 cm (16")	6	07616-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	3-stop	40.6 cm (16")	6	07624-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	Extension	15.2 m (50 ft)	1	07625-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
C-Flex®	Extension	15.2 m (50 ft)	1	95718-XX	—	-34	—	—	—	-42	—	-48	—
PharMed® BPT	2-stop	40.6 cm (16")	12	95723-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	3-stop	40.6 cm (16")	12	95714-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	Extension	30.4 m (100 ft)	1	95809-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
PharMed® BPT, Autoclavable	2-stop	40.6 cm (16")	6	95692-XX	-32	—	-36	—	—	-42	—	-48	—
	3-stop	40.6 cm (16")	6	95693-XX	-32	—	-36	—	—	-42	—	-48	—
Chem-Durance® Bio	2-stop	40.6 cm (16")	6	96327-XX	—	-34	-36	—	—	-42	—	-48	—
	3-stop	40.6 cm (16")	6	96328-XX	—	-34	-36	—	—	-42	—	-48	—
	Extension	30.4 m (100 ft)	1	96329-XX	—	-34	-36	—	—	-42	—	-48	—
Tygon® E-LFL	2-stop	40.6 cm (16")	12	96449-XX	—	-34	-36	—	-40	-42	—	-48	—
	3-stop	40.6 cm (16")	12	96450-XX	—	-34	-36	—	-40	-42	—	-48	—
	Extension	30.4 m (100 ft)	1	06449-XX	—	-34	-36	—	-40	-42	—	-48	—
Tygon® E-Food (B-44-4X)	2-stop	40.6 cm (16")	12	96457-XX	—	-34	—	—	—	-42	—	-48	—
	3-stop	40.6 cm (16")	12	96458-XX	—	-34	—	—	—	-42	—	-48	—
	Extension	30.4 m (100 ft)	1	06457-XX	—	-34	—	—	—	-42	—	-48	—
Tygon® E-Lab (E-3603)	2-stop	40.6 cm (16")	12	96460-XX	-32	-34	-36	-38	-40	-42	-44	-48	-49
	3-stop	40.6 cm (16")	12	96461-XX	-32	-34	-36	-38	-40	-42	-44	-48	-49
	Extension	30.4 m (100 ft)	1	06460-XX	-32	-34	-36	-38	-40	-42	-44	-48	-49
Versilon™ 2001 (formerly Tygon Chemical)	2-stop	40.6 cm (16")	6	96465-XX	—	—	-36	—	—	-42	—	-48	—
	3-stop	40.6 cm (16")	6	96466-XX	—	—	-36	—	—	-42	—	-48	—
	Extension	10.1 m (33 ft)	1	96467-XX	—	—	-36	—	—	-42	—	-48	—
Viton® FDA-Compliant	2-stop	30.5 cm (12")	12	97628-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	3-stop	30.5 cm (12")	12	97629-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	Extension	15.2 m (50 ft)	1	97632-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
Solva™	2-stop	40.6 cm (16")	12	95606-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	3-stop	40.6 cm (16")	12	95605-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	Extension	15.2 m (50 ft)	1	95712-XX	-32	-34	-36	-38	-40	-42	-44	-48	—
	Flared, 2-stop	40.6 cm (16")	12	95598-XX	—	—	—	—	—	—	—	—	—
	Flared, 3-stop	40.6 cm (16")	12	95599-XX	—	—	—	—	—	—	—	—	—







*Color ID key: B = blue, BK = black, G = green, GY = gray, O = orange, P = purple, R = red, W = white, Y = yellow

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L/S Two-Stop Precision Tubing Sets Ordering Information for 07535- and 07536-series pump heads

Pump tubing formulation	L/S Precision pump tubing			L/S High-performance precision pump tubing		
	L/S 13	L/S 14	L/S 16	L/S 15	L/S 24	L/S 35
Tygon® E-LFL 	GY-06447-13	GY-06447-14	GY-06447-16	GY-06447-15	GY-06447-24	GY-06447-35
Silicone (platinum-cured) 	GY-06421-13	GY-06421-14	GY-06421-16	GY-06421-15	GY-06421-24	GY-06421-35
BioPharm Plus Silicone (platinum-cured) 	GY-96116-13	GY-96116-14	GY-96116-16	GY-96116-15	GY-96116-24	GY-96116-35
PharMed® BPT 	GY-96114-13	GY-96114-14	GY-96114-16	GY-96114-15	GY-96114-24	GY-96114-35
Chem-Durance® Bio 	GY-96117-13	GY-96117-14	GY-96117-16	GY-96117-15	GY-96117-24	GY-96117-35
Viton® 	GY-96428-13	GY-96428-14	GY-96428-16	GY-96428-15	GY-96428-24	GY-96428-35







Flow Rates per Channel in mL/min with L/S Two-Stop Precision Pump Tubing Sets above

Drive rpm	Precision pump tubing			High-performance precision pump tubing		
	L/S 13	L/S 14	L/S 16	L/S 15	L/S 24	L/S 35
1 to 100	0.045 to 4.5	0.16 to 16	0.47 to 47	1.6 to 160	2.8 to 280	3.8 to 380
6 to 600	0.27 to 27	0.96 to 96	2.8 to 280	10 to 1000	17 to 1700	23 to 2300

MASTERFLEX® L/S® Precision Pump Tubing

– L/S pump tubing is manufactured to extremely close tolerances that match our L/S pump heads, ensuring accurate, repeatable flow and long tubing life

– Our pump tubing is factory-tested and optically inspected to provide the best performance from your peristaltic pump

Pump tubing cross sections	L/S Precision pump tubing					
						
	L/S 13	L/S 14	L/S 16	L/S 25	L/S 17	L/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	1.6 mm (1/16")	1.6 mm (1/16")	3.2 mm (1/8")	4.8 mm (3/16")	6.4 mm (1/4")	9.5 mm (3/8")
Flow range (approximate) [†] with 1 to 600 rpm drive	0.06 to 36 mL/min	0.21 to 130 mL/min	0.8 to 480 mL/min	1.7 to 1000 mL/min	2.8 to 1700 mL/min	3.8 to 2300 mL/min
Maximum pressure [‡]	2.7 bar (40 psig)		2.7 bar (40 psig)	2.4 bar (35 psig)	1.4 bar (20 psig)	1.0 bar (15 psig)
Maximum vacuum [‡]	660 mm Hg (26" Hg)		660 mm Hg (26" Hg)		510 mm Hg (20" Hg)	
Suction lift [‡]	8.8 m H ₂ O (29 ft H ₂ O)		8.8 m H ₂ O (29 ft H ₂ O)		6.7 m H ₂ O (22 ft H ₂ O)	

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

[‡]Actual performance varies depending on tubing formulation—values shown are for firm tubing.

Tubing	L/S Pump Head Compatibility							L/S 13 ^{††}	L/S 14 ^{††}	L/S 16	L/S 25	L/S 17	L/S 18
	Standard	Easy-Load®	Easy-Load II	Easy-Load 3	Multichannel cartridge	Cytoflow®	High-Performance						
Puri-Flex® 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	96419-13	96419-14	96419-16	96419-25	96419-17	96419-18
Silicone (platinum-cured) 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	96410-13	96410-14	96410-16	96410-25	96410-17	96410-18
Silicone (peroxide-cured) 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	96400-13	96400-14	96400-16	96400-25	96400-17	96400-18
BioPharm silicone (platinum-cured) 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	96420-13	96420-14	96420-16	96420-25	96420-17	96420-18
BioPharm Plus silicone (platinum-cured) 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	96440-13	96440-14	96440-16	96440-25	96440-17	96440-18
C-Flex® ULTRA 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	—	06434-14	06434-16	06434-25	06434-17	06434-18
C-Flex® 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06424-13	06424-14	06424-16	06424-25	06424-17	06424-18
PharMed® BPT 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06508-13	06508-14	06508-16	06508-25	06508-17	06508-18
PharMed® BPT High-Pressure 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	—	05664-14	05664-16	—	—	—
PharmaPure® 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06435-13	06435-14	06435-16	06435-25	06435-17	06435-18
Chem-Durance® Bio 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06442-13	06442-14	06442-16	06442-25	06442-17	06442-18
Tygon® E-LFL 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06440-13	06440-14	06440-16	06440-25	06440-17	06440-18
Tygon® E-Food (B-44-4X) 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06418-13	06418-14	06418-16	06418-25	06418-17	06418-18
Tygon® E-Lab (E-3603) 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06509-13	06509-14	06509-16	06509-25	06509-17	06509-18
Versilon™ 2001 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06475-13	06475-14	06475-16	06475-25	06475-17	06475-18
Tygon® Fuel & Lubricant (F-4040-A) 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06401-13	06401-14	06401-16	06401-25	06401-17	06401-18
Versilon™ (A-60-N) 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06404-13	06404-14	06404-16	06404-25	06404-17	06404-18
Tygon® (A-60-F) 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	✓	✓	06402-13	06402-14	06402-16	06402-25	06402-17	06402-18
 Gore® STA-PURE®, PCS 30.5 cm (12")/pk	✓	✓	✓	✓	✓	✓	✓	—	96211-14	96211-16	96211-25	96211-17	96211-18
 Gore® STA-PURE®, PFL 30.5 cm (12")/pk	✓	✓	✓	✓	✓	✓	✓	—	96212-14	96212-16	96212-25	96212-17	96212-18
Viton® FDA-Compliant 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	✓	✓	96412-13	96412-14	96412-16	96412-25	96412-17	96412-18

^{††}Sizes L/S 13 and L/S 14 are not compatible with Cytoflow pump head or thin-wall version of the High-Performance pump head.





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MASTERFLEX® L/S® High-Performance

Precision Pump Tubing

– Our High-Performance Precision pump tubing features a thicker wall compared to our Precision pump tubing

– Ideal choice for applications involving pressure, suction lift, viscous fluids, or long tubing life

Pump tubing cross sections	L/S High-Performance Precision pump tubing			
	 L/S 15	 L/S 24	 L/S 35	 L/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	4.8 mm (3/16")	6.4 mm (1/4")	9.5 mm (3/8")	9.5 mm (3/8")
Flow range (approximate) [†] with 1 to 600 rpm drive Value in () obtained with High-Performance pump head	1.7 to 1000 mL/min (1.8 to 1100 mL/min)	2.8 to 1700 mL/min (3.0 to 1800 mL/min)	3.8 to 2300 mL/min (4.3 to 2600 mL/min)	4.8 to 2900 mL/min (5.8 to 3400 mL/min)
Maximum pressure [‡]	2.7 bar (40 psig)		2.4 bar (35 psig)	1.4 bar (20 psig)
Maximum vacuum [‡]	660 mm Hg (26" Hg)		660 mm Hg (26" Hg)	610 mm Hg (24" Hg)
Suction lift [‡]	8.8 m H ₂ O (29 ft H ₂ O)		8.8 m H ₂ O (29 ft H ₂ O)	8.3 m H ₂ O (27 ft H ₂ O)

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

[‡]Actual performance varies depending on tubing formulation—values shown are for firm tubing.



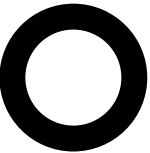
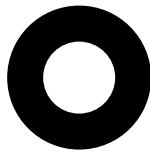
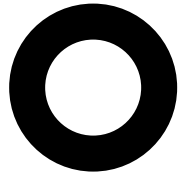
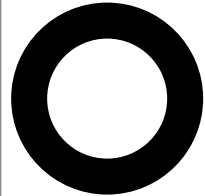
L/S Pump Head Compatibility

Tubing	L/S Pump Head Compatibility					L/S 15	L/S 24	L/S 35	L/S 36
	Standard	Easy-Load®	Easy-Load II	Easy-Load 3	High-Performance				
Puri-Flex® 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	96419-15	96419-24	96419-35	96419-36
Silicone (platinum-cured) 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	96410-15	96410-24	96410-35	96410-36
Silicone (peroxide-cured) 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	96400-15	96400-24	96400-35	96400-36
BioPharm silicone (platinum-cured) 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	96420-15	96420-24	96420-35	96420-36
BioPharm Plus silicone (platinum-cured) 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	96440-15	96440-24	96440-35	96440-36
C-Flex® ULTRA 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	06434-15	06434-24	06434-35	06434-36
C-Flex® 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	06424-15	06424-24	06424-35	06424-36
PharMed® BPT 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	06508-15	06508-24	06508-35	06508-36
PharMed® BPT High-Pressure 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	05664-15	05664-24	—	—
PharmaPure® 7.6 m (25 ft)/pk		✓	✓			06435-15	06435-24	—	—
Chem-Durance® Bio 15.2 m (50 ft)/pk		✓	✓			06442-15	06442-24	06442-35	06442-36
Tygon® E-LFL 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	06440-15	06440-24	06440-35	06440-36
Tygon® E-Food (B-44-4X) 15.2 m (50 ft)/pk		✓	✓	✓	✓	06418-15	06418-24	06418-35	06418-36
Tygon® E-Lab (E-3603) 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	06509-15	06509-24	06509-35	06509-36
Versilon™ 2001 15.2 m (50 ft)/pk		✓	✓			06475-15	06475-24	—	—
Tygon® Fuel & Lubricant (F-4040-A) 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	06401-15	06401-24	06401-35	06401-36
Versilon™ (A-60-N) 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	06404-15	06404-24	06404-35	06404-36
Tygon® (A-60-F) 15.2 m (50 ft)/pk	✓	✓	✓	✓	✓	06402-15	06402-24	06402-35	06402-36
GORE® STA-PURE®, PCS 35.6 cm (14")/pk	✓	✓	✓		✓	96211-15	96211-24	96211-35	96211-36
GORE® STA-PURE®, PFL 35.6 cm (14")/pk	✓	✓	✓		✓	96212-15	96212-24	96212-35	96212-36
Viton® FDA-Compliant 7.6 m (25 ft)/pk	✓	✓	✓	✓	✓	96412-15	96412-24	96412-35	96412-36

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- 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

Pump tubing cross sections	I/P Precision pump tubing			I/P High-Performance Precision pump tubing		
						
	I/P 26	I/P 73	I/P 82	I/P 70	I/P 88	I/P 89
Inside diameter (nominal)	6.4 mm (0.25")	9.5 mm (0.37")	12.7 mm (0.5")	9.5 mm (0.37")	12.7 mm (0.5")	15.88 mm (0.62")
Hose barb size (nominal)	6.4 mm (¼")	9.5 mm (⅜")	12.7 mm (½")	9.5 mm (⅜")	12.7 mm (½")	15.88 mm (⅝")
Flow range (approximate)† with 1 to 650 rpm drive	0.01 to 4 LPM (0.002 to 1.1 GPM)		0.02 to 13 LPM (0.005 to 3.5 GPM)	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‡	2.7 bar (40 psi)		1.4 bar (20 psi)	2.7 bar (40 psi)	2.4 bar (35 psi)	1.4 bar (20 psi)
Maximum vacuum†	660 mm Hg (26" Hg)		510 mm Hg (20" Hg)	660 mm Hg (26" Hg)		610 mm Hg (24" Hg)
Suction lift†	8.8 m H ₂ O (29 ft H ₂ O)		7.0 m H ₂ O (23 ft H ₂ O)	8.8 m H ₂ O (29 ft H ₂ O)		8.2 m H ₂ O (27 ft H ₂ O)

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

‡Actual performance varies depending on tubing formulation—values shown are for firm tubing.

Tubing	I/P Pump Head Compatibility				I/P Pump Head Compatibility			
	Standard	Easy-Load®	Cyrtoflow®		Length	I/P 70	I/P 88	I/P 89
Puri-Flex® 7.6 m (25 ft)/pk	✓	✓	✓	96419-26 96419-73 96419-82	✓	3.0 m (10 ft)/pk	96419-70 96419-88	96419-89
Silicone (platinum-cured) 7.6 m (25 ft)/pk	✓	✓	✓	96410-26 96410-73 96410-82	✓	3.0 m (10 ft)/pk	96510-70 96510-88	96510-89
Silicone (peroxide-cured) 7.6 m (25 ft)/pk	✓	✓	✓	96400-26 96400-73 96400-82		—	—	—
BioPharm silicone (platinum-cured) 7.6 m (25 ft)/pk	✓	✓	✓	96420-26 96420-73 96420-82	✓	3.0 m (10 ft)/pk	96421-70 96421-88	96421-89
BioPharm Plus silicone (platinum-cured) 7.6 m (25 ft)/pk	✓	✓	✓	96440-26 96440-73 96440-82	✓	3.0 m (10 ft)/pk	96441-70 96441-88	96441-89
C-Flex® ULTRA 7.6 m (25 ft)/pk	✓	✓	✓	06434-26 06434-73 06434-82	✓	—	—	—
C-Flex® 7.6 m (25 ft)/pk	✓	✓	✓	06424-26 06424-73 06424-82	✓	3.0 m (10 ft)/pk	06424-70 06424-88	06424-89
PharMed® BPT 7.6 m (25 ft)/pk	✓	✓	✓	06508-26 06508-73 06508-82	✓	7.6 m (25 ft)/pk	06508-70 06508-88	—
PharmaPure® 7.6 m (25 ft)/pk		✓	✓	06435-26 06435-73 06435-82		—	—	—
Chem-Durance® Bio 15.2 m (50 ft)/pk		✓	✓	06442-26 06442-73 06442-82	✓	15.2 m (50 ft)/pk	06442-70 06442-88	06442-89
Tygon® E-LFL 7.6 m (25 ft)/pk	✓	✓	✓	06440-26 06440-73 06440-82	✓	7.6 m (25 ft)/pk	06440-70 06440-88	06440-89
Tygon® E-Food (B-44-4X) 15.2 m (50 ft)/pk	✓	✓	✓	06418-26 06418-73 06418-82	✓	15.2 m (50 ft)/pk	06418-70 06418-88	06418-89
Tygon® E-Lab (E-3603) 15.2 m (50 ft)/pk	✓	✓	✓	06509-26 06509-73 06509-82	✓	15.2 m (50 ft)/pk	06509-70 06509-88	06509-89
Versilon™ 2001 15.2 m (50 ft)/pk		✓	✓	06475-26 06475-73 06475-82		—	—	—
Tygon® Fuel & Lubricant (F-4040-A) 15.2 m (50 ft)/pk	✓	✓	✓	— 06401-73 06401-82		—	—	—
Versilon™ (A-60-N) 15.2 m (50 ft)/pk	✓	✓	✓	06404-26 06404-73 06404-82	✓	7.6 m (25 ft)/pk	06404-70 06404-88	06404-89
Tygon® (A-60-F) 15.2 m (50 ft)/pk	✓	✓	✓	06402-26 06402-73 06402-82	✓	7.6 m (25 ft)/pk	— 06402-88	06402-89
Series PCS 61 cm (24")/pk	✓	✓	✓	96211-26 96211-73 96211-82	✓	61.0 cm (24")/pk	— 96211-88	96211-89
Series PFL 61 cm (24")/pk	✓	✓	✓	96212-26 96212-73 96212-82	✓	61.0 cm (24")/pk	— 96212-88	96212-89
Viton® FDA-Compliant 7.6 m (25 ft)/pk	✓	✓	✓	96412-26 96412-73 —		—	—	—

MASTERFLEX® L/S® and I/P® Pump Tubing

Spooled Pump Tubing

- Eliminate waste by cutting the exact length to fit your application
- Cost-effective, efficient, and convenient
- Always have enough tubing on hand
- Save space and shipping costs



96403-15

L/S Spooled Pump Tubing

Size	Platinum-cured silicone (96410, 96510-series)		Peroxide-cured silicone (96400-series)		PharMed® BPT (06508-series)	
	m (ft)	Cat. no.	m (ft)	Cat. no.	m (ft)	Cat. no.
L/S 13	152.4 (500)	96403-13	76.2 (250)	96407-13	—	—
L/S 14	152.4 (500)	96403-14	76.2 (250)	96407-14	152.4 (500)	95687-14
L/S 16	152.4 (500)	96403-16	76.2 (250)	96407-16	152.4 (500)	95687-16
L/S 25	152.4 (500)	96403-25	76.2 (250)	96407-25	—	—
L/S 17	152.4 (500)	96403-17	76.2 (250)	96407-17	152.4 (500)	95687-17
L/S 18	121.9 (400)	96403-18	61.0 (200)	96407-18	121.9 (400)	95687-18
L/S 15	121.9 (400)	96403-15	76.2 (250)	96407-15	121.9 (400)	95687-15
L/S 24	91.4 (300)	96403-24	61.0 (200)	96407-24	91.4 (300)	95687-24
L/S 35	91.4 (300)	96403-35	—	—	91.4 (300)	95687-35
L/S 36	30.5 (100)	96403-36	—	—	30.5 (100)	95687-36

I/P Spooled Pump Tubing

I/P 26	61.0 (200)	96403-26	—	—	61.0 (200)	—
I/P 73	45.7 (150)	96403-73	45.7 (150)	96402-73	45.7 (150)	95687-73
I/P 82	30.5 (100)	96403-82	30.5 (100)	96402-82	30.5 (100)	95687-82
I/P 88	—	—	—	—	—	—
I/P 89	—	—	—	—	—	—

L/S Spooled Pump Tubing

Size	BioPharm silicone (96420, 96421-series)		C-Flex® (06424-series)	
	m (ft)	Cat. no.	m (ft)	Cat. no.
L/S 13	—	—	121.9 (400)	06427-13
L/S 14	121.9 (400)	96423-14	121.9 (400)	06427-14
L/S 16	121.9 (400)	96423-16	121.9 (400)	06427-16
L/S 25	121.9 (400)	96423-25	121.9 (400)	06427-25
L/S 17	121.9 (400)	96423-17	121.9 (400)	06427-17
L/S 18	121.9 (400)	96423-18	121.9 (400)	06427-18
L/S 15	121.9 (400)	96423-15	121.9 (400)	06427-15
L/S 24	121.9 (400)	96423-24	121.9 (400)	06427-24
L/S 35	—	—	121.9 (400)	06427-35
L/S 36	—	—	121.9 (400)	06427-36

I/P Spooled Pump Tubing

I/P 26	121.9 (400)	96423-26	121.9 (400)	06427-26
I/P 73	30.5 (100)	96423-73	30.5 (100)	06427-73
I/P 82	—	—	30.5 (100)	06427-82
I/P 88	30.5 (100)	96423-88	—	—
I/P 89	30.5 (100)	96423-89	—	—

CUSTOM CUT TUBING

Masterflex.com/CCT

Bulk-Packed Pump Tubing

- Tubing coils are individually bagged and sealed to prevent contamination
- Save on shipping costs and reduce storage space
- Up to 20 sealed bags of tubing (depending on tubing size) in each case



96404-16

L/S Bulk-Packed Pump Tubing

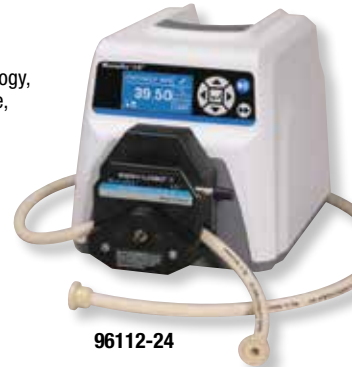
Size	Number of 7.6-m (25-ft) bags per box	Platinum-cured silicone (96410-series)	C-Flex® (06424-series)
		Cat. no.	Cat. no.
L/S 13	20	96404-13	06436-13
L/S 14	20	96404-14	06436-14
L/S 16	20	96404-16	—
L/S 25	20	96404-25	06436-25
L/S 17	20	96404-17	06436-17
L/S 18	10	96404-18	—
L/S 15	20	96404-15	06436-15
L/S 24	20	96404-24	06436-24
L/S 35	10	96404-35	06436-35
L/S 36	10	96404-36	06436-36

I/P Bulk-Packed Pump Tubing

I/P 26	10	96404-26	06436-26
I/P 73	10	96404-73	06436-73
I/P 82	10	96404-82	06436-82

Sanitary Pump Tubing Assemblies

- Meets stringent demands of biotechnology, pharmaceutical, and the food, beverage, and dairy processing industries
- Smooth, pre-molded tubing ends allow quick connection to an adapter or to another length of sanitary tubing
- Connectors help maintain cleanliness and purity of your fluids
- FREE Certificate of resin or elastomer Compliance is available upon request



96112-24

Size	Platinum-cured silicone (96410, 96510-series)		PharMed® BPT (06508-series)	
	1.5 m (5 ft)	3 m (10 ft)	1.5 m (5 ft)	3 m (10 ft)
	Cat. no.	Cat. no.	Cat. no.	Cat. no.

L/S Precision sanitary pump tubing

L/S 13	96100-13	96101-13	96112-13	96113-13
L/S 14	96100-14	96101-14	96112-14	96113-14
L/S 16	96100-16	96101-16	96112-16	96113-16
L/S 25	96100-25	96101-25	96112-25	96113-25
L/S 17	96100-17	96101-17	96112-17	96113-17
L/S 18	96100-18	96101-18	96112-18	96113-18

L/S High-Performance Precision sanitary pump tubing

L/S 15	96100-15	96101-15	96112-15	96113-15
L/S 24	96100-24	96101-24	96112-24	96113-24
L/S 35	—	—	96112-35	96113-35
L/S 36	—	—	96112-36	96113-36

I/P Precision sanitary pump tubing

I/P 26	96100-26	96101-26	96112-26	96113-26
I/P 73	96100-73	96101-73	96112-73	96113-73
I/P 82	96100-82	96101-82	96112-82	96113-82

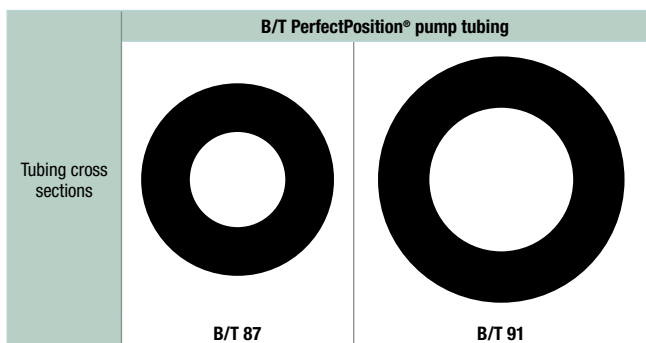
I/P High-Performance Precision sanitary pump tubing

I/P 70	—	—	96112-70	96113-70
I/P 88	—	—	96112-88	96113-88

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PerfectPosition® Pump Tubing for 77110- and 77111-Series B/T® Rapid-Load® Pump Heads

- Ensure optimal performance from your Masterflex pump
- PerfectPosition tubing retention marks indicate the exact placement of tubing in the pump head to provide the best performance and life of the tubing
- Custom extruded to fit 77110-series and 77111-series Masterflex B/T pumps and pump heads
- Engineered for long life in peristaltic pump applications



Pump tubing size	PerfectPosition® pump tubing	
	B/T 87	B/T 91
Inside diameter (nominal)	12.7 mm (0.5")	19.0 mm (0.75")
Hose barb size	12.7 mm (½")	19.0 mm (¾")
Flow range (approximate)† with 12 to 321 rpm drive	0.65 to 18.9 LPM (0.16 to 5.0 GPM)	1.4 to 42 LPM (0.3 to 11.1 GPM)
Maximum pressure‡	2.4 bar (35 psi)	2.06 bar (30 psi)
Maximum vacuum‡	660 mm Hg (26" Hg)	
Suction lift‡	8.8 m H ₂ O (29 ft H ₂ O)	

†Determined under the following conditions: 0 psi at inlet, 0.5 psi at outlet; water temperature at (22°C) 72°F. ‡Actual performance varies depending on tubing formulation—values shown are for firm tubing.

Pump tubing formulation		B/T PerfectPosition pump tubing	
		B/T 87	B/T 91
Puri-Flex®	3.0 m (10 ft) per pack	96419-87	96419-91
Silicone (platinum-cured)	3.0 m (10 ft) per pack	96510-87	96510-91
Silicone (peroxide-cured)	3.0 m (10 ft) per pack	96400-87	96400-91
BioPharm Plus silicone (platinum-cured)	3.0 m (10 ft) per pack	96445-87	96445-91
C-Flex®	3.0 m (10 ft) per pack	06424-87	06424-91
PharMed® BPT	3.0 m (10 ft) per pack	06507-87	06507-91
PharmaPure®	3.0 m (10 ft) per pack	06437-87	06437-91
Chem-Durance® Bio	3.0 m (10 ft) per pack	06443-87	06443-91
Tygon® E-LFL	3.0 m (10 ft) per pack	06440-87	06440-91
Tygon® E-Food (B-44-4X)	3.0 m (10 ft) per pack	06418-87	06418-91
GORE® STA-PURE®, Series PCS	68.6 cm (27") per pack	96211-87	96211-91
Tygon® (A-60-F)	3.0 m (10 ft) per pack	06399-87	06399-91

