



MPC SERIES

Specifications

Pressure:

Vacuum to 60 psi, 4.14 bar

Temperature:

Polysulfone: -40° F to 300° F (-40° C to 149° C)

Polycarbonate: -40° F to 250° F (-40° C to 121° C)

ABS: -40° F to 160° F (-40° C to 71° C)

Materials:

Main components:

Polycarbonate (purple tint), USP Class VI

Polysulfone (amber tint), USP Class VI

ABS (white), USP Class VI

Locking sleeves:

Polysulfone (white), (not applicable for ABS)

O-rings: Silicone (clear), platinum-cured, USP Class VI and Buna-N (black), USP Class V

Sterilization:

Gamma: Up to 50 kGy irradiation

Autoclave

Polycarbonate: 250°F (121°C), 30 minutes, up to 10 repetitions. Sterilize uncoupled only.

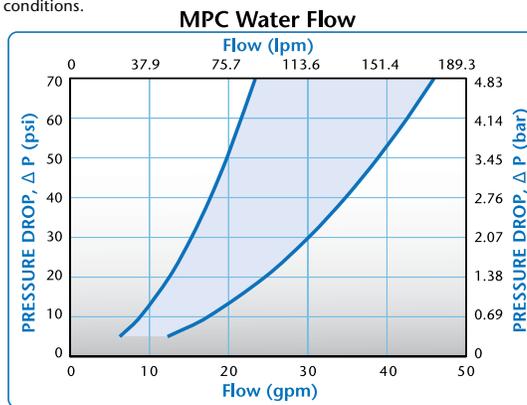
Polysulfone: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

Tubing Sizes: 1/4" to 3/8" ID, 6.4mm to 9.5mm ID

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of Colder's products in their own application conditions.

MPC Series couplings add ease of use and security to your most critical fluid handling applications. Choose from a full line of connectors and configurations, including pressure sealing caps and plugs, in sizes to fit 1/4" and 3/8" tubing. MPC couplings offer optional locking sleeves to further guard against accidental disconnects. In addition, coupling halves can be rotated when connected to reduce tube kinks.

Features	Benefits
Ergonomic thumb latch	Easy to operate – even with gloved hands
USP Class VI materials	Meets biocompatibility requirements
Sterilizable by autoclave, EtO, e-beam, or gamma	Reusable, yet economical enough to allow disposability
Parting line-free hose barb	Eliminates potential leak path



This graph is intended to give you a general idea of the performance capabilities of each product line. The shaded area of the graph represents the operating range of the product family, i.e. upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

Note: MPC Series mates with SaniQuik and Sanitary Series (See pages 8-9)

Liquid Flow Rates

Liquid Flow Rate Information for Couplings

The chart below shows the flow rate for Colder couplings. Each coupling was tested with water at 70° F (21° C). To determine flow rates for specific coupling configurations use the formula below.

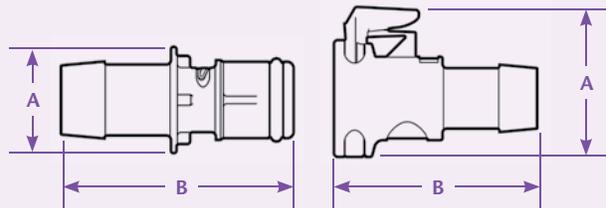
$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

Q=Flow rate in gallons per minute
 C_v=Average constant of various rates (see chart)
 ΔP=Pressure drop across coupling (psi)
 S=Specific gravity of liquid

C_v Values for MPC Couplings

	MPC 22004T	MPC 22006T
BODIES		
MPC170004T	2.8	2.8
MPC170006T	2.8	5.5

Product Dimensions



A = Height/Diameter
B = Total Length

Coupling Bodies



ABS

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
<i>IN-LINE</i>	1/4" ID	6.4mm ID	.210"	MPC17004T	.93 (23.6)	1.30 (33.0)
<i>HOSE BARB</i>	3/8" ID	9.5mm ID	.290"	MPC17006T	.93 (23.6)	1.30 (33.0)



POLYCARBONATE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
<i>IN-LINE</i>	1/4" ID	6.4mm ID	.210"	MPC17004T03	.93 (23.6)	1.30 (33.0)
<i>HOSE BARB</i>	3/8" ID	9.5mm ID	.290"	MPC17006T03	.93 (23.6)	1.30 (33.0)



TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
<i>IN-LINE</i>	1/4" ID	6.4mm ID	.210"	MPCK17004T03	.99 (25.2)	1.30 (33.0)
<i>HOSE BARB WITH LOCK</i>	3/8" ID	9.5mm ID	.290"	MPCK17006T03	.99 (25.2)	1.30 (33.0)



POLYSULFONE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
<i>IN-LINE</i>	1/4" ID	6.4mm ID	.210"	MPC17004T39	.93 (23.6)	1.30 (33.0)
<i>HOSE BARB</i>	3/8" ID	9.5mm ID	.290"	MPC17006T39	.93 (23.6)	1.30 (33.0)



TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
<i>IN-LINE</i>	1/4" ID	6.4mm ID	.210"	MPCK17004T39	.99 (25.2)	1.30 (33.0)
<i>HOSE BARB WITH LOCK</i>	3/8" ID	9.5mm ID	.290"	MPCK17006T39	.99 (25.2)	1.30 (33.0)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.

Accessories



DESCRIPTION	MATERIALS	PART NO.
Leash plug for MPC body	Soft, flexible, medical-grade PVC	MPC30L
Leash cap for MPC insert	Soft, flexible, medical-grade PVC	MPC32L

Note: For validation quantities of MPC and MPX, contact Colder for 25 piece bag quantities



DID YOU KNOW ...

Colder's products for Life Sciences applications are manufactured in our ISO Class 7 certified cleanroom. The SMC, MPC, MPX, MPU, Sanitary, HFC39 and Steam-Thru® product lines are all molded from medical-grade materials and are packaged in double bags with material certifications.



DID YOU KNOW ...

Many of Colder's connectors are made from Animal-Free materials thereby reducing the amount of BSE-related documentation. Contact Customer Service at 1-800-444-2474 or 651-645-0091 for further information about Colder's Animal-Free material offering.

Coupling Inserts ABS

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE	1/4" ID	6.4mm ID	.210"	MPC22004TM	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
HOSE BARB	3/8" ID	9.5mm ID	.290"	MPC22006TM	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)



TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE	1/4" ID	6.4mm ID	.210"	MPC22004T	Buna-N Seal USP Class V	.60 (15.2)	1.30 (33.0)
HOSE BARB	3/8" ID	9.5mm ID	.290"	MPC22006T	Buna-N Seal USP Class V	.60 (15.2)	1.30 (33.0)



POLYCARBONATE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE	1/4" ID	6.4mm ID	.210"	MPC22004T03M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
HOSE BARB	3/8" ID	9.5mm ID	.290"	MPC22006T03M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)



TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE	1/4" ID	6.4mm ID	.210"	MPC22004T03	Buna-N Seal USP Class V	.60 (15.2)	1.30 (33.0)
HOSE BARB	3/8" ID	9.5mm ID	.290"	MPC22006T03	Buna-N Seal USP Class V	.60 (15.2)	1.30 (33.0)



POLYSULFONE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE	1/4" ID	6.4mm ID	.210"	MPC22004T39M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
HOSE BARB	3/8" ID	9.5mm ID	.290"	MPC22006T39M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)



SEALING CAP	SEALING CAP W/LOCK	MATERIAL	A	B
MPC32003	MPCK32003	Polycarbonate	.93 (23.6)	1.30 (33.0)
MPC32039	MPCK32039	Polysulfone	.99 (25.2)	1.30 (33.0)

Accessories



SEALING PLUG	O-RING	MATERIAL	A	B
MPC30003M	Silicone Seal USP Class VI	Polycarbonate	.75 (19.1)	1.24 (31.5)
MPC30039M	Silicone Seal USP Class VI	Polysulfone	.75 (19.1)	1.24 (31.5)

Accessories



All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.



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RELIABLE
FLEXIBLE
MPC SERIES
COMPATIBLE
STERILE



MPX SERIES

MPX Specifications

Pressure: Vacuum to 60 psi, 4.14 bar

Temperature:

Polysulfone:
-40° F to 300° F (-40° C to 149° C)

Polycarbonate:
-40° F to 250° F (-40° C to 121° C)

Materials:

Main components:
Polysulfone (amber tint), USP Class VI; Polycarbonate (purple tint), USP Class VI

Locking sleeves: Polysulfone (white)

O-rings:

Silicone (clear), platinum-cured, USP Class VI

Sterilization:

Gamma: Up to 50 kGy irradiation

Autoclave

Polycarbonate: Up to 250°F (121°C), 30 minutes, up to 10 repetitions. Sterilize uncoupled only.

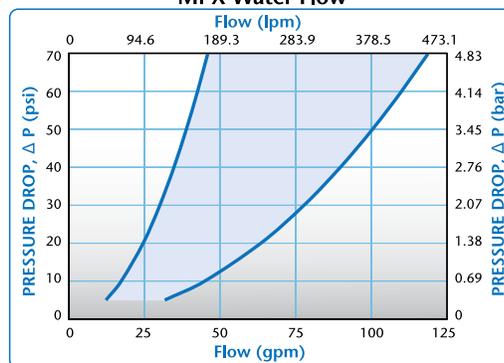
Polysulfone: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

Tubing Sizes:

3/8" to 1/2" ID, 9.5mm to 12.7mm ID

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of Colder's products in their own application conditions.

MPX Water Flow



These graphs are intended to give you a general idea of the performance capabilities of each product line. The shaded area of each graph represents the operating range of the product family, i.e., upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

MPX Series couplings add ease of use and security to your most critical fluid handling applications. Choose from a full line of connectors and configurations, including pressure sealing caps and plugs in sizes to fit 3/8" and 1/2" tubing. MPX couplings offer optional locking sleeves to further guard against accidental disconnects. In addition, coupling halves can be rotated when connected reducing tube kinks.

Features

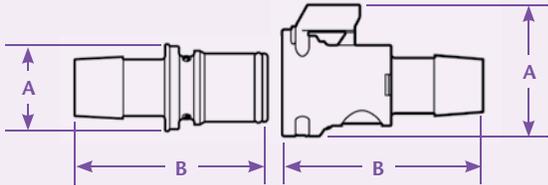
- Ergonomic thumb latch
- USP Class VI materials
- Sterilizable by autoclave, EtO, e-beam, or gamma
- Parting line-free hose barb

Benefits

- Easy to operate – even with gloved hands
- Meets biocompatibility requirements
- Reusable, yet economical enough to allow disposability
- Eliminates potential leak path

Note: MPC Series mates with SaniQuik™ and Sanitary Series (See pages 8-9)

Product Dimensions



A = Height/Diameter
B = Total Length

Coupling Bodies

POLYCARBONATE



TERMINATION	TUBING SIZE	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
IN-LINE HOSE BARB	1/2" ID	12.7mm ID	.500"	MPX17803	1.28 (32.5)	1.96 (49.8)
IN-LINE HOSE BARB WITH LOCK	1/2" ID	12.7mm ID	.500"	MPXK17803	1.28 (32.5)	1.96 (49.8)

POLYSULFONE



TERMINATION	TUBING SIZE	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
IN-LINE HOSE BARB	1/2" ID	12.7mm ID	.500"	MPX17839	1.28 (32.5)	1.96 (49.8)
IN-LINE HOSE BARB WITH LOCK	1/2" ID	12.7mm ID	.500"	MPXK17839	1.28 (32.5)	1.96 (49.8)



Coupling Inserts

POLYCARBONATE



TERMINATION	TUBING SIZE	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE HOSE BARB	3/8" ID	9.5mm ID	.375"	MPX22603M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)
	1/2" ID	12.7mm ID	.500"	MPX22803M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)

POLYSULFONE



TERMINATION	TUBING SIZE	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE HOSE BARB	3/8" ID	9.5mm ID	.375"	MPX22639M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)
	1/2" ID	12.7mm ID	.500"	MPX22839M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)

Accessories

SEALING CAP MPX32003	SEALING CAP W/LOCK MPXK32003	A	B
		1.28 (32.5)	1.67 (42.4)
SEALING CAP MPX32039	SEALING CAP W/LOCK MPXK32039	A	B
		1.28 (32.5)	1.67 (42.4)



Accessories

SEALING PLUG MPX30003M	O-RING Silicone Seal USP Class VI	A	B
		1.10 (27.9)	1.66 (42.2)
SEALING PLUG MPX30039M	O-RING Silicone Seal USP Class VI	A	B
		1.10 (27.9)	1.66 (42.2)



All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.

SANITARY SERIES



Specifications

Pressure:

Vacuum to 60 psi, 4.14 bar

Temperature:

-40° F to 300° F (-40° C to 149° C)

Materials:

Main components:

Polysulfone (amber tint)

O-rings (mating insert): Silicone (clear), platinum-cured, USP Class VI

Sterilization:

Gamma: Up to 50 kGy irradiation

Autoclave:

Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

Termination Size:

3/4" and 1"

Sanitary couplings attach directly to popular 3/4" mini and 1" maxi size sanitary connections, eliminating the need for cumbersome adapters or tubing assemblies. Direct attachment allows faster connection to and disconnection from installed, rigid and flexible piping systems.

Notes: Mates with MPC polycarbonate and polysulfone inserts and sealing plugs (pages 4-5) and MPX polycarbonate and polysulfone bodies and sealing caps (pages 6-7).

Features

Ergonomic thumb latch

3/4" and 1" sanitary terminations

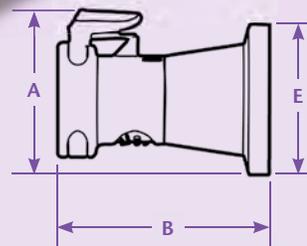
Compatible with MPC and MPX Series couplings

Benefits

Easy to operate – even with gloved hands

Install with standard gaskets and clamps

Easy conversion to industry standard connections or single-use systems



A = Height/Diameter
B = Total Length
E = Outside Diameter

Coupling Bodies POLYSULFONE



PART NO.	SIZE	A	B	E
MPC3301239	3/4"	.98 (24.9)	1.40 (35.6)	1.0 (25.4mm)
MPC3301639	1"	1.50 (38.1)	1.40 (35.6)	1.5 (38.1mm)
MPX3301239	3/4"	1.28 (32.5)	1.70 (43.2)	1.0 (25.4mm)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. **NOTE:** QD sanitary couplings are compatible with both stainless steel and plastic clamps. Clamps and gaskets are referenced for illustration and are not available through Colder.



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HFC39 SERIES

Specifications

Pressure:

Vacuum to 125 psi, 8.62 bar

Temperature:

-40° F to 280° F (-40° C to 138° C)

Materials:

Main components:

Polysulfone (amber tint), USP Class VI

O-rings: Silicone (clear), platinum-cured, USP Class VI

Springs: 316 stainless steel

Sterilization:

Gamma: Up to 50 kGy gamma irradiation. Sterilize coupled or uncoupled.

Autoclave: At 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

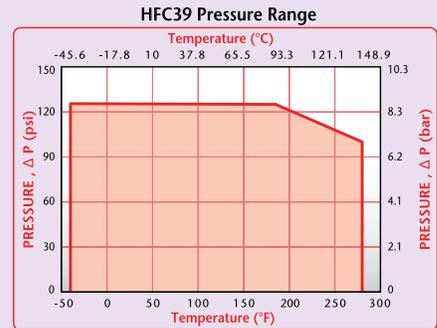
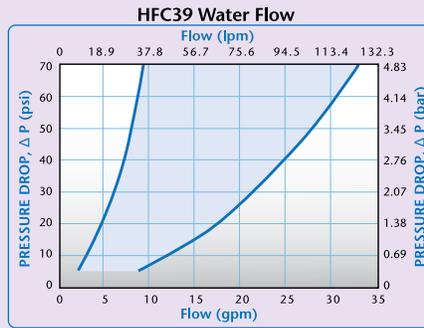
Tubing Sizes:

1/4", 3/8" and 1/2" ID

6.4mm, 9.5mm and 12.7mm ID

HFC39 Series couplings provide

aseptic disconnect functionality. Automatic shutoff valves close off the flow path at disconnection, protecting valuable media while also eliminating the need for pinch clamps and tube welders. An easy-to-use thumb latch design provides a secure, leak-free connection as well as enabling one-handed disconnects.



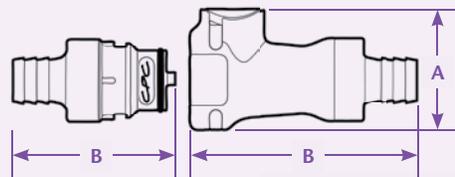
Features

- Automatic shutoff valves
- Audible "click"
- Lightweight

Benefits

- Stops flow and eliminates need for pinch clamps
- Provides confidence of a secure connection
- Easy integration with single-use assemblies

Product Dimensions



A = Height/Diameter B = Total Length (including valve)

Coupling Bodies



POLYSULFONE

TERMINATION	TUBING SIZE	METRIC EQ.	FLOW	SHUTOFF	A	B
IN-LINE	1/4" ID	6.4mm ID	1/4"	HFCD17439M	1.44 (36.6)	2.82 (71.6)
HOSE BARB	3/8" ID	9.5mm ID	3/8"	HFCD17639M	1.44 (36.6)	2.82 (71.6)
	1/2" ID	12.5mm ID	3/8"	HFCD17839M	1.44 (36.6)	2.82 (71.6)

Coupling Inserts



POLYSULFONE

TERMINATION	TUBING SIZE	METRIC EQ.	FLOW	STRAIGHT THRU	SHUTOFF	A	B
IN-LINE	1/4" ID	6.4mm ID	1/4"	HFC22439M	HFCD22439M	1.00 (25.4)	2.02 (51.3)
HOSE BARB	3/8" ID	9.5mm ID	3/8"	HFC22639M	HFCD22639M	1.00 (25.4)	2.02 (51.3)
	1/2" ID	12.5mm ID	3/8"	HFC22839M	HFCD22839M	1.00 (25.4)	2.02 (51.3)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Couplings are pictured with valves unless otherwise noted.

MPU SERIES



Specifications

Pressure: Vacuum to 35 psi, 2.41 bar

Temperature:
-40° F to 300° F (-40° C to 149° C)

Materials:

Main components:
Polysulfone (amber tint), USP Class VI

O-rings: Silicone (clear), platinum-cured, USP Class VI

Sterilization:

Gamma: Up to 50 kGy irradiation

Autoclave: At 270° F (132° C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

Tubing Sizes: 3/4" ID, 19mm ID

The MPU's twist-to-connect

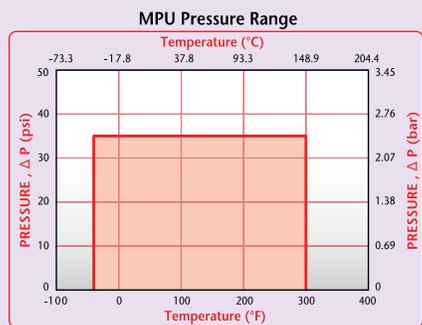
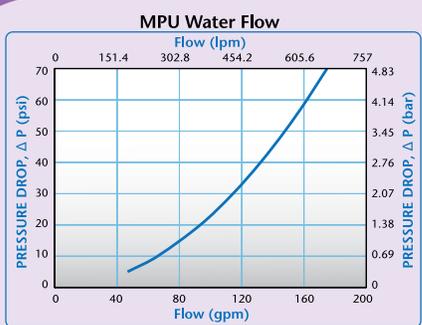
design features an easy-to-use locking mechanism that guards against accidental disconnects and provides a reliable, secure connection. A 3/4" hose barb provides smooth, rapid media transfer.

Features

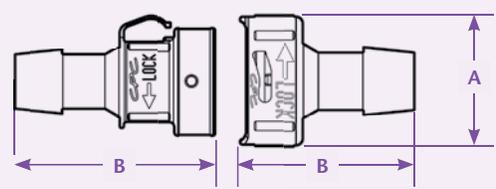
- 3/4" hose barb
- Locking feature
- Sharp barb end
- Shrouded, leak-free seal & smooth, internal flow path
- Lightweight

Benefits

- Facilitates rapid fill and empty of bioprocessing bags
- Guards against accidental disconnect
- Minimizes fluid turbulence and dead space
- Protect valuable fluids and eliminate potential to contaminate fluid path
- Removes extra weight from assemblies



Product Dimensions



A = Height/Diameter B = Total Length

Coupling Bodies



POLYSULFONE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
IN-LINE HOSE BARB	3/4" ID	19mm ID	.710"	MPU171239	1.75 (44.5)	2.37 (60.2)



Coupling Inserts

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE HOSE BARB	3/4" ID	19mm ID	.710"	MPU221239M	Silicone Seal USP Class VI	1.56 (39.6)	2.88 (73.2)

Accessories



SEALING CAP	MATERIAL	A	B	
MPU32039	Polysulfone	1.75 (44.5)	.79 (20.1)	
SEALING PLUG	O-RING	MATERIAL	A	B
MPU30039M	Silicone Seal USP Class VI	Polysulfone	1.56 (39.6)	1.38 (35.1)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Couplings are pictured with valves unless otherwise noted.