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# 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

Ergonomic thumb latch

USP Class VI materials

Sterilizable by autoclave, EtO, e-beam, or gamma

Parting line-free hose barb

### Benefits

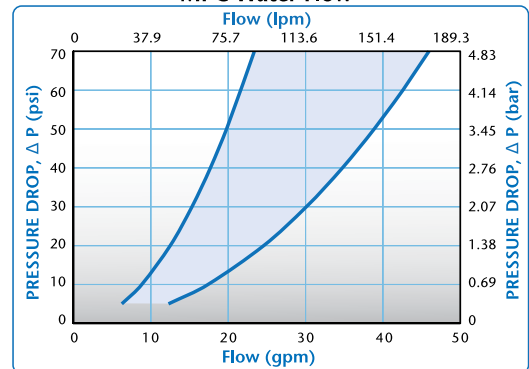
Easy to operate – even with gloved hands

Meets biocompatibility requirements

Reusable, yet economical enough to allow disposability

Eliminates potential leak path

**MPC Water Flow**



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<sub>v</sub>=Average constant of various rates (see chart)

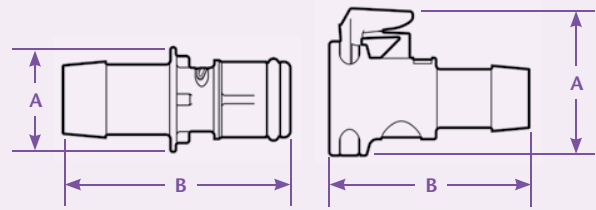
ΔP=Pressure drop across coupling (psi)

S=Specific gravity of liquid

### C<sub>v</sub> Values for MPC Couplings

BODIES	MPC 22004T	MPC 22006T
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
IN-LINE	1/4" ID	6.4mm ID	.210"	MPC17004T	.93 (23.6)	1.30 (33.0)
HOSE BARB	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
IN-LINE	1/4" ID	6.4mm ID	.210"	MPC17004T03	.93 (23.6)	1.30 (33.0)
HOSE BARB	3/8" ID	9.5mm ID	.290"	MPC17006T03	.93 (23.6)	1.30 (33.0)



TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
IN-LINE	1/4" ID	6.4mm ID	.210"	MPCK17004T03	.99 (25.2)	1.30 (33.0)
HOSE BARB WITH LOCK	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
IN-LINE	1/4" ID	6.4mm ID	.210"	MPC17004T39	.93 (23.6)	1.30 (33.0)
HOSE BARB	3/8" ID	9.5mm ID	.290"	MPC17006T39	.93 (23.6)	1.30 (33.0)



TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
IN-LINE	1/4" ID	6.4mm ID	.210"	MPCK17004T39	.99 (25.2)	1.30 (33.0)
HOSE BARB WITH LOCK	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**  
Leash plug for MPC body

**MATERIALS**  
Soft, flexible, medical-grade PVC

**PART NO.**  
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 HOSE BARB	1/4" ID	6.4mm ID	.210"	MPC22004TM	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
	3/8" ID	9.5mm ID	.290"	MPC22006TM	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
IN-LINE HOSE BARB	1/4" ID	6.4mm ID	.210"	MPC22004T	Buna-N Seal USP Class V	.60 (15.2)	1.30 (33.0)
	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 HOSE BARB	1/4" ID	6.4mm ID	.210"	MPC22004T03M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
	3/8" ID	9.5mm ID	.290"	MPC22006T03M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
IN-LINE HOSE BARB	1/4" ID	6.4mm ID	.210"	MPC22004T03	Buna-N Seal USP Class V	.60 (15.2)	1.30 (33.0)
	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 HOSE BARB	1/4" ID	6.4mm ID	.210"	MPC22004T39M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
	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.



Call toll free 1-800-444-2474 or visit us at [www.colder.com](http://www.colder.com)

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RELIABLE  
MPC SERIES  
COMPATIBLE  
STERILE