

MPC™ SERIES CONNECTOR

The MPC™ series couplings add ease of use and security to critical fluid handling applications. Choose from a full line of connectors and configurations, including pressure sealing caps and plugs, in sizes to fit 1/8" to 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.

SPECIFICATIONS

OPERATING PRESSURE:

Vacuum to 60 psi, 4.1 bar

OPERATING TEMPERATURE:

ABS:

-40°F to 160°F (-40°C to 71°C)

Polycarbonate:

-40°F to 250°F (-40°C to 121°C)

Polysulfone:

-40°F to 300°F (-40°C to 149°C)

MATERIALS:

Main components:

ABS (white), USP Class VI, Polycarbonate (purple tint), USP Class VI, ADCF Polysulfone (amber tint), USP Class VI, ADCF

Locking sleeves:

Polysulfone (white), USP Class VI, ADCF

Thumb Latches:

Polycarbonate (white), USP Class VI, ADCF Polysulfone (amber tint), USP Class VI, ADCF

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

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:

1/8" to 3/8" ID (3.2mm to 9.5mm)

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



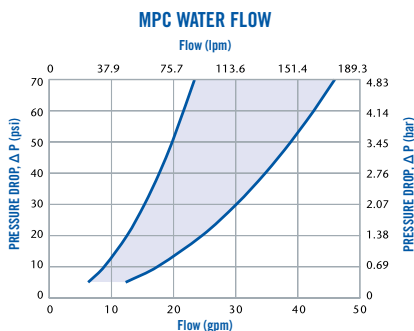
FEATURES

- Ergonomic thumb latch → Easy to operate – even with gloved hands
- USP Class VI materials → Meet 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
- ADCF-free materials → Meet BSE/TSE requirements

BENEFITS

NOTE

MPC Series mates with Back-to-Back Adapters, SaniQuik™ and Sanitary Series.








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.








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MPC™ SERIES DIMENSIONS

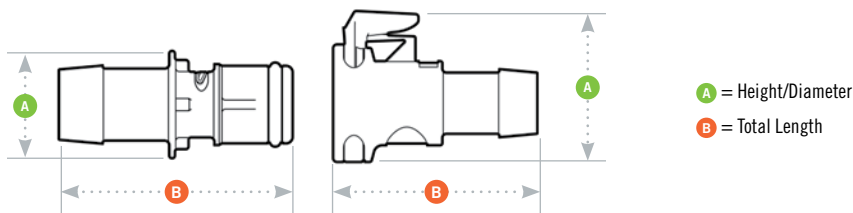
COUPLING BODIES - ABS / Polycarbonate / Polysulfone

TERMINATION	TUBING SIZE	METRIC EQ	FLOW	STRAIGHT THRU	O-RINGS	A	B
 ABS IN-LINE HOSE BARB	1/4" ID	6.4mm ID	0.21"	MPC17004T		0.96 (24.4)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC17006T		0.96 (24.4)	1.3 (33.0)
 POLYCARBONATE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC17002T03		0.96 (24.4)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC17004T03		0.96 (24.4)	1.1 (27.9)
	3/8" ID	9.5mm ID	0.29"	MPC17006T03		0.96 (24.4)	1.1 (27.9)
 POLYCARBONATE IN-LINE HOSE BARB WITH LOCK	1/8" ID	3.2mm ID	0.09"	MPCK17002T03		0.99 (25.1)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPCK17004T03		0.99 (25.1)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPCK17006T03		0.99 (25.1)	1.3 (33.0)
 POLYSULFONE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC17002T39		0.96 (24.4)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC17004T39		0.96 (24.4)	1.1 (27.9)
	3/8" ID	9.5mm ID	0.29"	MPC17006T39		0.96 (24.4)	1.1 (27.9)
 POLYSULFONE IN-LINE HOSE BARB WITH LOCK	1/8" ID	3.2mm ID	0.09"	MPCK17002T39		0.99 (25.1)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPCK17004T39		0.99 (25.1)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPCK17006T39		0.99 (25.1)	1.3 (33.0)

COUPLING INSERTS - ABS / Polycarbonate / Polysulfone

TERMINATION	TUBING SIZE	METRIC EQ	FLOW	STRAIGHT THRU	O-RINGS	A	B
 ABS IN-LINE HOSE BARB	1/4" ID	6.4mm ID	0.21"	MPC22004TM	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006TM	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
 ABS IN-LINE HOSE BARB	1/4" ID	6.4mm ID	0.21"	MPC22004T	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006T	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
 POLYCARBONATE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC22002T03M	Silicone Seal USP Class VI	0.6 (15.2)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC22004T03M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006T03M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
 POLYSULFONE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC22002T03	Buna-N Seal USP Class V	0.6 (15.2)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC22004T03	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006T03	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
 POLYSULFONE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC22002T39M	Silicone Seal USP Class VI	0.6 (15.2)	1.1 (27.9)
	1/4" ID	6.4mm ID	0.21"	MPC22004T39M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
	3/8" ID	9.5mm ID	0.29"	MPC22006T39M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)

PRODUCT DIMENSIONS



MPC™ SERIES CONNECTOR (CONT.)

ADAPTORS



SEALING CAP	W/LOCK	MATERIAL	A	B
MPC32003	MPCK32003	Polycarbonate	0.96 (24.4 mm)	1.3 (33.0 mm)
MPC32039	MPCK32039	Polysulfone	0.99 (25.1 mm)	1.3 (33.0 mm)

SEALING PLUG	O-RING	MATERIAL	A	B
MPC30003M	Silicone Seal USP Class VI	Polycarbonate	0.75 (19.1 mm)	1.24 (31.5 mm)
MPC30039M	Silicone Seal USP Class VI	Polysulfone	0.75 (19.1 mm)	1.24 (31.5 mm)

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

LIQUID FLOW RATE INFORMATION FOR COUPLINGS

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

C_v VALUES

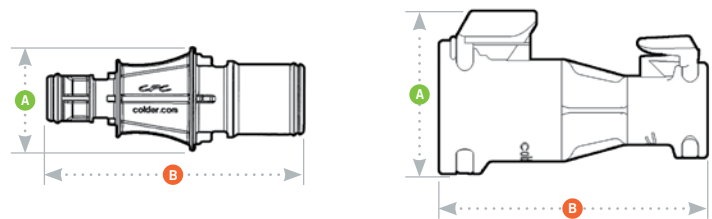
INSERTS

BODIES	INSERTS		
	MPC22002T03	MPC22004T03	MPC22006T03
MPC17002T03	0.11	-	0.21
MPC17004T03	-	2.8	2.8
MPC17006T03	0.14	2.8	5.5

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

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

BACK-TO-BACK PRODUCT DIMENSIONS



A = Height/Diameter B = Total Length

BACK-TO-BACK SERIES CONNECTOR



MPC™/MPX® Back-to-Back Adapters give end users the flexibility of connecting single-use systems that feature identical coupling connections at the end of their tubing. Combining both MPC and MPX couplings provides a reducing option for users who need to transition between tubing diameters ranging from 1/8" to 1/2".

FEATURES

Compatible with MPC and MPX Series inserts



BENEFITS

Easy conversion to industry standard connections or single-use systems

Tubing reduction option



Allows easy transition between multiple size tubing from 1/8" to 1/2" ID

Ergonomic thumb latches



Easy to operate - even with gloved hands

ADCF-free materials



Meet BSE/TSE requirements

BACK-TO-BACK INSERT ADAPTORS - Polysulfone



PART NO.	TYPE	A	B
MPC22C2239M	MPC to MPC	0.74 (18.8)	2.04 (51.8)
MPC22X2239M	MPC to MPX	0.98 (24.9)	2.42 (61.5)
MPX22X2239M	MPX to MPX	0.98 (24.9)	2.73 (69.3)

BACK-TO-BACK BODY ADAPTORS - Polycarbonate



PART NO.	TYPE	A	B
MPC17C1703	MPC to MPC	0.96 (24.4)	1.81 (46.0)
MPX17X1703	MPX to MPX	1.28 (32.5)	2.44 (62.0)
MPC17X1703	MPC to MPX	1.28 (32.5)	2.13 (54.1)

BACK-TO-BACK BODY ADAPTORS - Polysulfone



PART NO.	TYPE	A	B
MPC17C1739	MPC to MPC	0.96 (24.4)	1.81 (46.0)
MPX17X1739	MPX to MPX	1.28 (32.5)	2.44 (62.0)
MPC17X1739	MPC to MPX	1.28 (32.5)	2.13 (54.1)

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

SPECIFICATIONS

PRESSURE:

Vacuum to 60 psi, 4.1 bar

TEMPERATURE:

Polycarbonate:

-40°F to 250°F (-40°C to 121°C)

Polysulfone:

-40°F to 300°F (-40°C to 149°C)

MATERIALS:

Main Components:

Polycarbonate (purple tint), USP Class VI, ADCF

Polysulfone (amber tint), USP Class VI, ADCF

Thumb Latches:

Polycarbonate (white), USP Class VI, ADCF

Polysulfone (amber tint), USP Class VI, ADCF

O-rings:

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

STERILIZATION:

Gamma: Up to 50 kGy irradiation

Autoclave:

Polycarbonate: Up to 250°F (121°C) for 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.

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

NOTE

Mates with MPC and MPX bodies, inserts and sealing caps and plugs (pages 124-128).



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