



OPEN FORMAT CONNECTION TECHNOLOGY

WHAT IS OPEN FORMAT CONNECTION TECHNOLOGY?

CPC's open format connectors (also known as quick connectors or quick disconnectors) are a straightforward and simple way to incorporate media transfer technology between your single-use systems. Our open format products feature male and female connector halves with caps and plugs to seal off the fluid pathway of the single-use system. Simply removing the cap and plug from each half of the system and joining the male and female connection links the fluid pathways of your two separate systems.

CPC's open format products—the MPC Series, MPX Series, and MPU Series Connectors—enable connections from 1/8" ID tubing to 1" ID tubing. In addition, the MPC and MPX connectors feature an ergonomic thumb latch and optional locking sleeve to prevent accidental disconnection.

Sanitary adapters within the MPC and MPX product lines facilitate integration of components into single-use or hybrid (single-use to stainless) process systems.

Back-to-back adapters within the MPC and MPX product lines can be used to connect two identical body components or insert components. For additional flexibility, reducer options enable connection between an MPC and MPX product to link 1/8" to 1/2" ID tubing.



FEATURES

BENEFITS

- Ergonomic thumb latch → Easy to operate – even with gloved hands
- Parting line-free hose barb → Creates seamless connection to tubing
- Optional locking sleeve (MPC, MPX) → Prevents accidental disconnection
- Mix and match termination sizes → Enables flexibility in your application

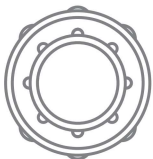
NOMINAL FLOW PATH (NFP) SIZE



	NFP	CV RANGE
MPC	(0.25")	0.1 – 8.0
BACK-TO-BACK BODIES & INSERTS	(0.375" – 0.5")	2.0 – 6.0



	NFP	CV RANGE
MPX	(0.5")	4.0 – 17
BACK-TO-BACK BODIES & INSERTS	(0.375" – 0.5")	23 – 32



	NFP	CV RANGE
MPU	(1")	18 – 41

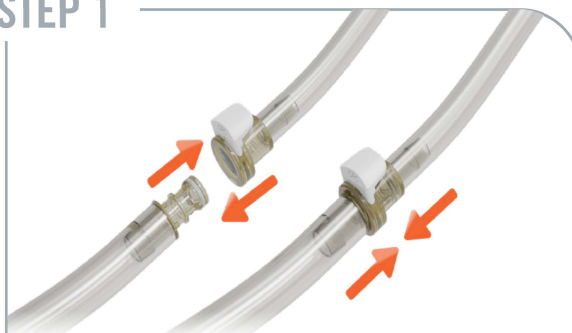
Cv values represent the approximate expected flow rate in gallons per minute of water at room temperature for a 1 PSI pressure drop. The flow is generally constrained by the smallest diameter, which in some cases will be the termination diameter and not the NFP.

OPEN FORMAT CONNECTION OPTIONS

	TERMINATIONS							PRODUCT FEATURES		FLOW-PATH MATERIALS			STERILIZATION (CHOOSE 1)		FLOW INFORMATION	
	HOSE BARB						SANITARY	OPTIONAL LOCKING SLEEVE		SILICONE SEAL	POLYCARBONATE	POLYSULFONE	GAMMA COMPATIBLE	AUTOCLEAVEABLE	NOMINAL FLOW PATH	CV VALUE RANGE
	1/8"	1/4"	3/8"	1/2"	3/4"	1"	3/4"									
MPC	✓	✓	✓					✓		✓	✓	✓	✓	✓	1/4"	0.1 – 8.0
MPC SANITARY							✓	✓		✓		✓	✓	✓	1/4"	0.1 – 8.0
MPC BACK-TO-BACK BODIES											✓	✓	✓	✓	1/4" - 1/2"	2.0 – 6.0
MPC BACK-TO-BACK INSERTS										✓		✓	✓	✓	1/4" - 1/2"	2.0 – 6.0
MPX			✓	✓				✓		✓	✓	✓	✓	✓	1/2"	4.0 – 17
MPX SANITARY							✓	✓		✓		✓	✓	✓	1/2"	4.0 – 17
MPX BACK-TO-BACK BODIES											✓	✓	✓	✓	1/4" - 1/2"	23 – 32
MPX BACK-TO-BACK INSERTS										✓		✓	✓	✓	1/4" - 1/2"	23 – 32
MPU					✓	✓				✓		✓	✓	✓	1"	18 – 41

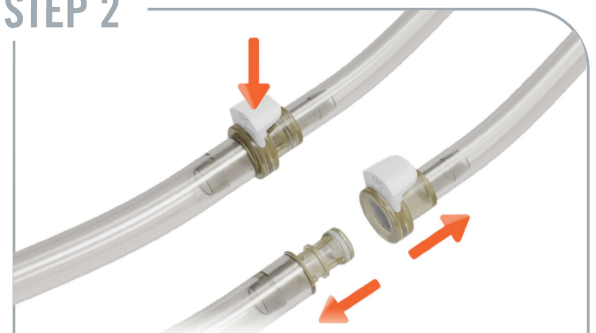
MPC/MPX ASSEMBLY PROCEDURE

STEP 1



To connect two MPC or two MPX components, press the body (or cap) and insert (or plug) components together.

STEP 2



To disconnect two MPC or two MPX components, depress the thumb latch and separate the two components from one another.

NOTE: If using a body or cap component with a locking sleeve, twist to the “locked” position after connecting the two halves to prevent accidental disconnection. When you are ready to disconnect once again, twist the locking sleeve to the “unlocked” position.

MPC SERIES CONNECTORS

MPC Series Connectors 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

Polycarbonate:

-40°F to 250°F (-40°C to 121°C)

Polysulfone:

-40°F to 300°F (-40°C to 149°C)

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),
60 minutes, up to 25 repetitions

Sterilize uncoupled only

TERMINATIONS

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

MATERIALS

Main components:

Polycarbonate (purple tint)

Polysulfone (amber tint)

Locking sleeves:

Polysulfone (white)

Thumb Latches:

Polycarbonate (white)

PVDF (white)

O-rings:

Silicone (clear), platinum-cured

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.

CAUTION: CPC does not recommend the use of PVC tubing with the polycarbonate MPC Series Connectors. Leachables from PVC tubing could be incompatible with polycarbonate material and affect product performance. Determining product application suitability is solely the customer's responsibility. CPC does not guaranty or warrant product suitability for any application or use.



FEATURES

- Ergonomic thumb latch → Easy to operate – even with gloved hands
- Parting line-free hose barb → Prevent potential leak path
- Optional locking sleeve → Prevents accidental disconnection
- Various options on termination size and material → Better flexibility to fit more applications

BENEFITS

TYPICAL FLOW RATE

Cv Value Range: 0.1 – 8
for MPC hose barb terminations

Cv values represent the approximate expected flow rate in gallons per minute of water at room temperature for a 1 PSI pressure drop. The flow is generally constrained by the smallest diameter, which in some cases will be the termination diameter and not the Nominal Flow Path.

NOTE

Validation and Extractables data can be requested at cpcworldwide.com/MPC

DID YOU KNOW

The MPC and MPX connectors are perfect for smaller bag systems for aliquoted media or other product stored in bags.

Scan code to visit webpage



cpcworldwide.com/MPC

MPC SERIES DIMENSIONS

COUPLING BODIES

	TERMINATION	METRIC EQ.	POLYCARBONATE PART NO.	POLYSULFONE PART NO.	A	B
	1/8" HOSE BARB	3.2 mm ID	MPC17002T03	MPC17002T39	0.96" (24.4 mm)	1.10" (27.9 mm)
	1/4" HOSE BARB	6.4 mm ID	MPC17004T03	MPC17004T39	0.96" (24.4 mm)	1.30" (33.0 mm)
	3/8" HOSE BARB	9.5 mm ID	MPC17006T03	MPC17006T39	0.96" (24.4 mm)	1.30" (33.0 mm)
	1/8" HOSE BARB W/ LOCK	3.2 mm ID	MPCK17002T03	MPCK17002T39	1.02" (25.9 mm)	1.10" (27.9 mm)
	1/4" HOSE BARB W/ LOCK	6.4 mm ID	MPCK17004T03	MPCK17004T39	1.02" (25.9 mm)	1.30" (33.0 mm)
	3/8" HOSE BARB W/ LOCK	9.5 mm ID	MPCK17006T03	MPCK17006T39	1.02" (25.9 mm)	1.30" (33.0 mm)

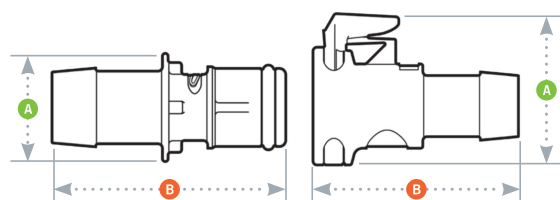
COUPLING INSERTS

	TERMINATION	METRIC EQ.	POLYCARBONATE PART NO.	POLYSULFONE PART NO.	A	B
	1/8" HOSE BARB	3.2 mm ID	MPC22002T03M	MPC22002T39M	0.60" (15.2 mm)	1.09" (27.7mm)
	1/4" HOSE BARB	6.4 mm ID	MPC22004T03M	MPC22004T39M	0.60" (15.2 mm)	1.30" (33.0 mm)
	3/8" HOSE BARB	9.5 mm ID	MPC22006T03M	MPC22006T39M	0.60" (15.2 mm)	1.30" (33.0 mm)

SEALING COMPONENTS

	SEALING CAP	W/LOCK	MATERIAL	A	B
	MPC32003	MPCK32003	Polycarbonate	0.96" (24.4 mm)	1.30" (33.0 mm)
	MPC32039	MPCK32039	Polysulfone	0.99" (25.2 mm)	1.30" (33.0 mm)
	SEALING PLUG		MATERIAL	A	B
	MPC30003M		Polycarbonate	0.75" (19.1 mm)	1.24" (31.5 mm)
	MPC30039M		Polysulfone	0.75" (19.1 mm)	1.24" (31.5 mm)

PRODUCT DIMENSIONS



A = Height/Diameter

B = Total Length

MPX SERIES CONNECTORS

MPX Series Connectors add ease of use and security to your media transfer 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.



SPECIFICATIONS

OPERATING PRESSURE

Vacuum to 60 psi, 4.1 bar

OPERATING TEMPERATURE

Polycarbonate:

-40°F to 250°F (-40°C to 121°C)

Polysulfone:

-40°F to 300°F (-40°C to 149°C)

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),

60 minutes, up to 25 repetitions

Sterilize uncoupled only

TERMINATIONS

3/8" to 1/2" ID (9.5mm to 12.7mm)

MATERIALS

Main components:

Polycarbonate (purple tint)

Polysulfone (amber tint)

Locking sleeves:

PVDF (white)

Thumb Latches:

Polycarbonate (white)

PVDF (white)

O-rings:

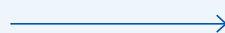
Silicone (clear), platinum-cured

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.

CAUTION: CPC does not recommend the use of PVC tubing with the polycarbonate MPX Series Connectors. Leachables from PVC tubing could be incompatible with polycarbonate material and affect product performance. Determining product application suitability is solely the customer's responsibility. CPC does not guaranty or warrant product suitability for any application or use.

FEATURES

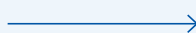
Ergonomic thumb latch



BENEFITS

Easy to operate – even with gloved hands

Parting line-free hose barb



Prevents potential leak path

Optional locking sleeve



Prevents accidental disconnection

Mix and match termination sizes



Enables flexibility in your system and/or application

TYPICAL FLOW RATE

Cv Value Range: 4 - 17
for MPX

Cv values represent the approximate expected flow rate in gallons per minute of water at room temperature for a 1 PSI pressure drop. The flow is generally constrained by the smallest diameter, which in some cases will be the termination diameter and not the Nominal Flow Path.

NOTE

Validation and Extractables data can be requested at cpcworldwide.com/MPX

DID YOU KNOW

The MPC and MPX connectors are perfect for smaller bag systems for aliquoted media or other product stored in bags.

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cpcworldwide.com/MPX

MPX SERIES DIMENSIONS

COUPLING BODIES



TERMINATION	METRIC EQ.	FLOW	POLYCARBONATE PART NO.	POLYSULFONE PART NO.	A	B
1/2" ID HOSE BARB	12.7 mm ID	.50"	MPX17803	MPX17839	1.28" (32.5 mm)	1.96" (49.8 mm)
1/2" ID HOSE BARB W/ LOCK	12.7 mm ID	.50"	MPXK17803	MPXK17839	1.28" (32.5 mm)	1.96" (49.8 mm)

COUPLING INSERTS



TERMINATION	METRIC EQ.	FLOW	POLYCARBONATE PART NO.	POLYSULFONE PART NO.	A	B
3/8" HOSE BARB	9.5 mm ID	.38"	MPX22603M	MPX22639M	0.85" (21.6 mm)	1.90" (48.3 mm)
1/2" HOSE BARB	12.7 mm ID	.50"	MPX22803M	MPX22839M	0.85" (21.6 mm)	1.90" (48.3 mm)

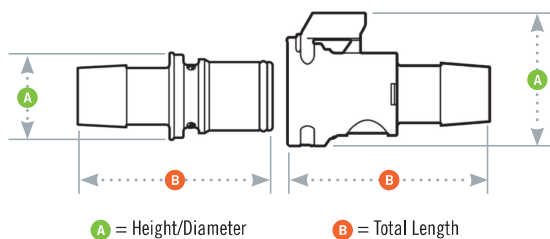
SEALING COMPONENTS



SEALING CAP	W/LOCK	MATERIAL	A	B
MPX32003	MPXK32003	Polycarbonate	1.28" (32.5 mm)	1.67" (42.4 mm)
MPX32039	MPXK32039	Polysulfone	1.28" (32.5 mm)	1.67" (42.4 mm)
SEALING PLUG		MATERIAL	A	B
MPX30003M		Polycarbonate	1.10" (27.9 mm)	1.66" (42.2 mm)
MPX30039M		Polysulfone	1.10" (27.9 mm)	1.66" (42.2 mm)

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

PRODUCT DIMENSIONS



MPC/MPX BACK-TO-BACK SERIES ADAPTERS

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".



SPECIFICATIONS

OPERATING PRESSURE

Vacuum to 60 psi, 4.1 bar

OPERATING TEMPERATURE

Polycarbonate:

-40°F to 250°F (-40°C to 121°C)

Polysulfone:

-40°F to 300°F (-40°C to 149°C)

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),

60 minutes, up to 25 repetitions

Sterilize uncoupled only

MATERIALS

Main Components:

Polycarbonate (purple tint)

Polysulfone (amber tint)

Thumb Latches:

Polycarbonate (white)

PVDF (white)

O-rings:

Silicone (clear), platinum-cured

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

Compatible with MPC and MPX Series inserts

Tubing reduction option

Ergonomic thumb latches

BENEFITS

Easy conversion to industry standard connections or single-use systems

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

Easy to operate — even with gloved hands

TYPICAL FLOW RATE

Cv Value Range: 2 - 32

for Back-to-Back hose barb terminations

Cv values represent the approximate expected flow rate in gallons per minute of water at room temperature for a 1 PSI pressure drop. The flow is generally constrained by the smallest diameter, which in some cases will be the termination diameter and not the Nominal Flow Path.

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cpcworldwide.com/Back-to-Back-Adapters

NOTE

Validation and Extractables data can be requested at cpcworldwide.com/Back-to-Back-Adapters

DID YOU KNOW

The MPC and MPX connectors are perfect for smaller bag systems for aliquoted media or other product stored in bags.

MPC/MPX BACK-TO-BACK SERIES DIMENSIONS

MPC/MPX BACK-TO-BACK INSERT ADAPTERS - Polysulfone



PART NO.	TYPE	A	B
MPC22C2239M	MPC to MPC	0.74" (18.8)	2.04" (51.0)
MPC22X2239M	MPC to MPX	0.98" (25.0)	2.42" (61.5)
MPX22X2239M	MPX to MPX	0.98" (25.0)	2.73" (69.5)

MPC/MPX BACK-TO-BACK BODY ADAPTERS - Polycarbonate



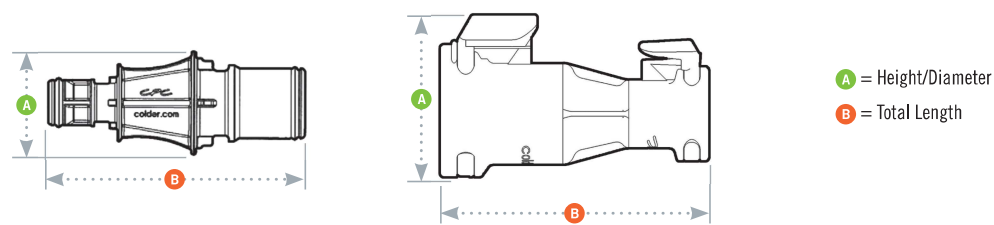
PART NO.	TYPE	A	B
MPC17C1703	MPC to MPC	0.96" (24.5)	1.81" (46.0)
MPX17X1703	MPX to MPX	1.28" (32.5)	2.44" (62.0)
MPC17X1703	MPC to MPX	1.28" (32.5)	2.13" (54.1)

MPC/MPX BACK-TO-BACK BODY ADAPTERS - Polysulfone



PART NO.	TYPE	A	B
MPC17C1739	MPC to MPC	0.96" (24.5)	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)

PRODUCT DIMENSIONS



NOTES

MPC/MPX SANITARY SERIES CONNECTORS

MPC/MPX Sanitary Connectors attach directly to 3/4", 1" and 1-1/2" sanitary terminations to provide greater flexibility for integrating components into single-use or hybrid (single-use to stainless) process systems. Standard bag systems with quick couplings can be easily connected to equipment with sanitary terminations, while single-use cartridge filters can be converted to incorporate quick couplings for greater system modularity.



SPECIFICATIONS

OPERATING PRESSURE:

Vacuum to 60 psi, 4.1 bar

OPERATING TEMPERATURE:

-40°F to 300°F (-40°C to 149°C)

STERILIZATION:

- ☐ **Gamma:** Up to 50 kGy irradiation
- ☐ **Autoclave:** Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

TERMINATIONS:

3/4", 1" and 1-1/2" sanitary

MATERIALS:

Main components:

Polysulfone (amber tint)

Thumb Latches:

PVDF (white)

O-rings: Silicone (clear), platinum-cured

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

3/4", 1" and 1-1/2" sanitary terminations →

Compatible with MPC and MPX Series couplings →

Integral coupling adapters →

ADCF-free materials →

BENEFITS

Install to equipment with sanitary gaskets and sanitary clamps

Quick and easy connections to industry standard plastic couplings

Provides flexibility to easily convert sanitary terminations on filter cartridge or equipment

Meet BSE/TSE requirements

TYPICAL FLOW RATE

Cv Value Range: 3 - 17

Cv values represent the approximate expected flow rate in gallons per minute of water at room temperature for a 1 PSI pressure drop. The flow is generally constrained by the smallest diameter, which in some cases will be the termination diameter and not the Nominal Flow Path.

NOTE

Validation and Extractables data can be requested on at cpcworldwide.com/Sanitary

DID YOU KNOW

MPC and MPX Sanitary connectors provide greater flexibility for filter installation.

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MPC/MPX SANITARY SERIES DIMENSIONS

COUPLING BODIES - Polysulfone



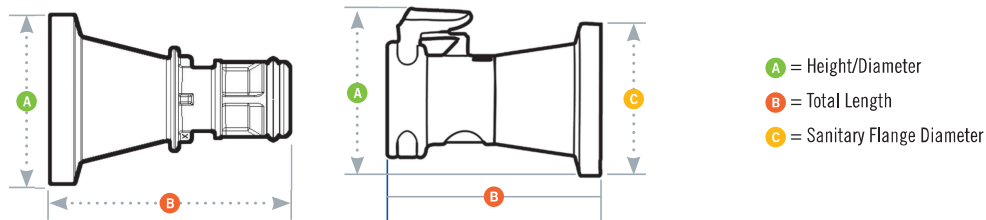
PART NO.	SIZE	A	B	C
MPC3301239	3/4"	0.98" (24.9)	1.40" (35.6)	1.0" (25.4)
MPX3301239	3/4"	1.28" (32.5)	1.70" (43.2)	1.0" (25.4)
MPC3301639	1"	1.50" (38.1)	1.40" (35.6)	1.50" (38.1)

COUPLING INSERTS - Polysulfone



PART NO.	SIZE	A	B
MPC44012T39M	3/4"	0.98" (24.9)	1.40" (35.6)
MPC44024T39M	1-1/2"	1.98" (50.3)	1.40" (35.6)
MPX44012T39M	3/4"	0.98" (24.9)	1.71" (43.4)
MPX44024T39M	1-1/2"	1.98" (50.3)	1.71" (43.4)

PRODUCT DIMENSIONS



NOTES