



Connection Solutions for BioPharmaceutical Processes

- Increase Productivity
- Add Flexibility
- Minimize Risk
- Reduce Cost



Advantages of Single-use Systems

Increase Productivity

The reliability of single-use systems results in increased productivity through the reduction of system downtime associated with cleaning and cleaning validation. Reducing downtime of key processes allows manufacturers to increase output while also decreasing time to market.

Add Flexibility

Flexibility is critical as processors strive to develop and introduce multiple drugs. Single-use systems enable fast, flexible facility changeovers that minimize cross-contamination risks and support multi-drug manufacturing.

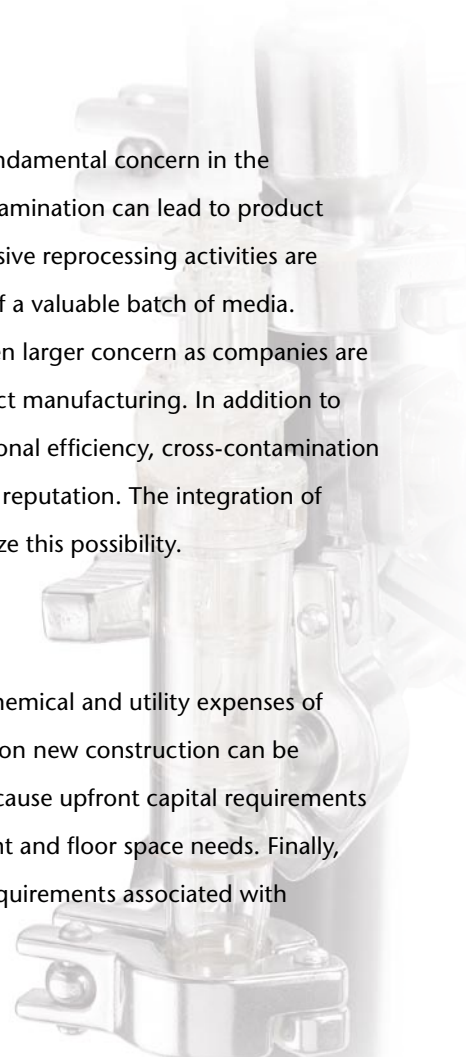
Implementing single-use technologies enables manufacturers to leverage existing equipment and increase production capacity without costly facility expansion.

Minimize Risk

Reducing risks continues to be a fundamental concern in the bioprocessing industry. Media contamination can lead to product quality issues. Subsequently, expensive reprocessing activities are often required to prevent the loss of a valuable batch of media. Contamination risk becomes an even larger concern as companies are now conducting more multi-product manufacturing. In addition to having a negative effect on operational efficiency, cross-contamination can negatively impact a company's reputation. The integration of single-use systems can help minimize this possibility.

Reduce Cost

Cost savings include the reduced chemical and utility expenses of cleaning and labor. Capital savings on new construction can be attributed to single-use systems because upfront capital requirements are reduced due to lower equipment and floor space needs. Finally, existing facilities can reduce WFI requirements associated with traditional hard-plumbed systems.



MPC SERIES



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

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

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

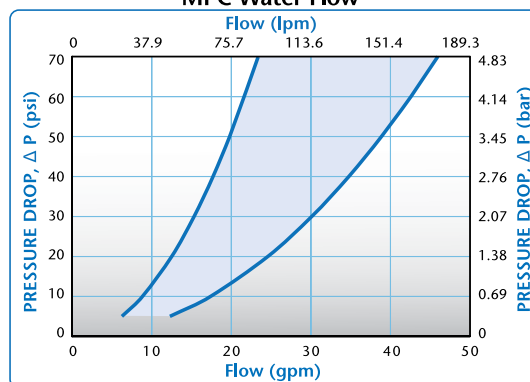
Polycarbonate: 250°F (121°C), 30 minutes, up to 10 repetitions. Sterilize uncoupled only.

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 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.

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)

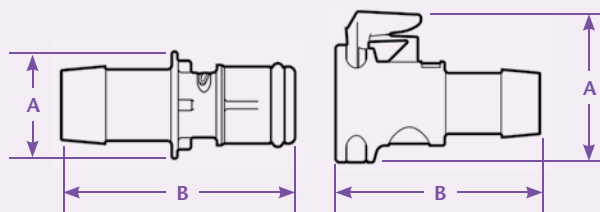
ΔP =Pressure drop across coupling (psi)

S=Specific gravity of liquid

C_v Values for MPC Couplings

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	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)



Accessories

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)



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



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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

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.

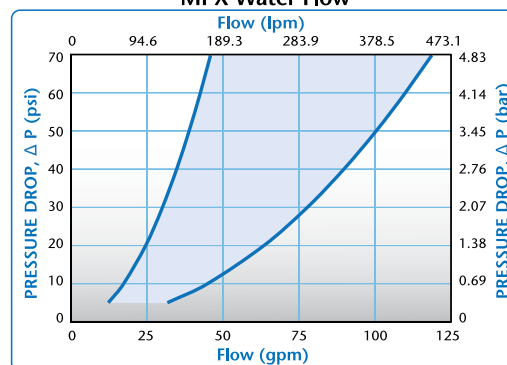
Polysulfone: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

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.

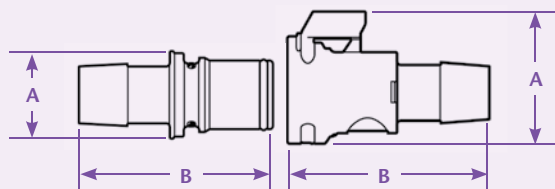
MPX Water Flow



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.

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



POLYSULFONE

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



Coupling Inserts

POLYCARBONATE

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



POLYSULFONE

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



Accessories

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



Accessories

SEALING PLUG MPX3003M	O-RING Silicone Seal USP Class VI	A 1.10 (27.9)	B 1.66 (42.2)
SEALING PLUG MPX30039M	O-RING Silicone Seal USP Class VI	A 1.10 (27.9)	B 1.66 (42.2)



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



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SANIQUICK SERIES



Colder's SaniQuik™ connection answers the question of how to integrate single-use components with your existing stainless processing equipment. This integral sanitary termination attaches to hard-plumbed systems with tri-clover clamps. Once attached it permits quick and easy connection to single-use bag systems, manifolds or tube sets which incorporate Colder single-use couplings. SaniQuik connections reduce sanitary gasket replacement, enabling cost-effective media transfer solutions for feeding, harvesting or sampling applications.

Features

- 3/4" and 1-1/2" sanitary standard terminations
- Compatible with MPC & MPX Series
- Integral coupling adaptor

Benefits

- Connect to hard plumbed systems with sanitary gasket and tri-clover clamps
- Quick and easy connections to industry standard plastic couplings on single-use bag and tube sets
- Disconnecting coupling reduces sanitary gasket replacement

Specifications

Pressure:

Vacuum to 60 psi, 4.14 bar

Temperature:

-40° F to 300° F (-40° C to 149° C)

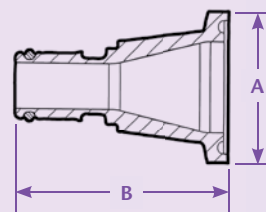
Materials:

Main component: 316L stainless steel

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

Sterilization: Autoclave

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



A = Height/Diameter
B = Total Length

Connections

316L STAINLESS



DESCRIPTION
SILICONE SEAL
USP CLASS VI

PART NO.

SQCC221212M
SQCC222424M
SQCX221212M
SQCX222416M
SQCX222424M

MATING COUPLING

MPC Series
MPC Series
MPX Series
MPX Series
MPX Series

SANITARY SIZE

3/4"
1-1/2"
3/4"
1-1/2"
1-1/2"

SANITARY BORE

3/4"
1-1/2"
3/4"
1"
1-1/2"

A

.89" (22.6)
1.98" (50.3)
.89" (22.6)
1.98" (50.3)
1.98" (50.3)

B

1.39" (35.3)
1.50" (38.1)
1.54" (39.1)
1.50" (38.1)
1.50" (38.1)

Accessories

SILICONE (CLEAR)



DESCRIPTION
PLATINUM-CURED
USP CLASS VI
REPLACEMENT
SEALS

PART NO.

2260100
2260200

MATING SANIQUICK

SQCC221212M, SQCC222424M
SQCX221212M, SQCX222416M, SQCX222424M

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.

Features

Ergonomic thumb latch

3/4" and 1" sanitary terminations

Compatible with MPC and MPX Series couplings

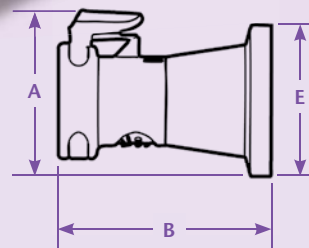
Benefits

Easy to operate – even with gloved hands

Install with standard gaskets and clamps

Easy conversion to industry standard connections or single-use systems

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).



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.

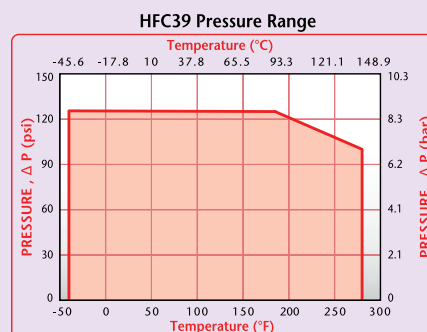
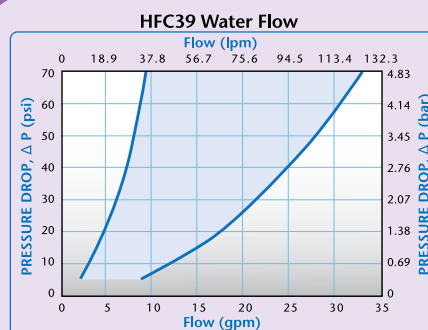
Tubing Sizes:

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

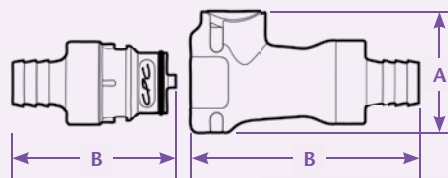
Benefits

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
IN-LINE
HOSE BARB

TUBING SIZE	METRIC EQ.	FLOW
1/4" ID	6.4mm ID	1/4"
3/8" ID	9.5mm ID	3/8"
1/2" ID	12.5mm ID	3/8"

SHUTOFF	A	B
HFCD17439M	1.44 (36.6)	2.82 (71.6)
HFCD17639M	1.44 (36.6)	2.82 (71.6)
HFCD17839M	1.44 (36.6)	2.82 (71.6)

Coupling Inserts



POLYSULFONE

TERMINATION
IN-LINE
HOSE BARB

TUBING SIZE	METRIC EQ.	FLOW	STRAIGHT THRU
1/4" ID	6.4mm ID	1/4"	HFC22439M
3/8" ID	9.5mm ID	3/8"	HFC22639M
1/2" ID	12.5mm ID	3/8"	HFC22839M

SHUTOFF	A	B
HFCD22439M	1.00 (25.4)	2.02 (51.3)
HFCD22639M	1.00 (25.4)	2.02 (51.3)
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

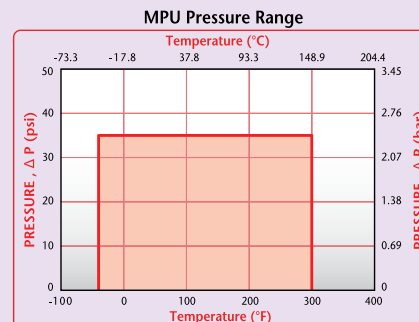
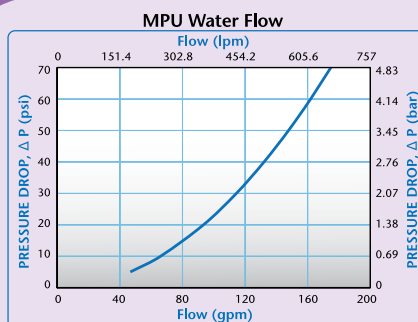
Facilitates rapid fill and empty of bioprocessing bags

Guards against accidental disconnect

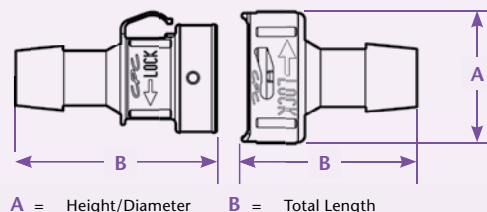
Minimizes fluid turbulence and dead space

Protect valuable fluids and eliminate potential to contaminate fluid path

Removes extra weight from assemblies



Product Dimensions



Coupling Bodies



POLYSULFONE

TERMINATION
IN-LINE
HOSE BARB

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



Coupling Inserts

TERMINATION
IN-LINE
HOSE BARB

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

Accessories



SEALING CAP
MPU32039

MATERIAL
Polysulfone

A	B
1.75 (44.5)	.79 (20.1)

SEALING PLUG
MPU30039M

O-RING
Silicone Seal
USP Class VI

MATERIAL
Polysulfone

A	B
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.



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Steam-Thru® Connections allow a quick and easy sterile connection between biopharmaceutical processing equipment and single-use bag and tube assemblies. The single-use design saves time and money by eliminating unnecessary cleaning procedures and reducing validation burden associated with reusable components.

Features

Innovative three-port design

Patented valve design

Thumb latch/tear-away sleeve

Industry standard terminations

Single-use design

Benefits

Allows a true steam-through SIP process which eliminates "dead legs" and the need for laminar flow hoods

Allows sterile connection and disconnection and permits high media flow rate

Provides visual indicator of process stage and secures valve position

Speed connection to the process equipment and connect to popular sizes of flexible tubing

Eliminates unnecessary cleaning procedures and validation issues

STEAM-THRU CONNECTIONS

Specifications

Pressure:

Steam position:

Up to 30 psi, 2.07 bar (Steam-Thru)

35 psi, 2.41 bar (Steam-Thru II)

Flow position: Vacuum to 20 psi, 1.38 bar

Temperature:

Steam position:

Up to 266° F (130° C) for 60 minutes (Steam-Thru)

Up to 275° F (135° C) for 60 minutes (Steam-Thru II)

Flow position: 39° F to 104° F (4° C to 40° C)

Materials:

Connection: (amber tint) Polysulfone, USP Class VI

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

Tear-away sleeve: Polyethylene or polycarbonate (Steam-Thru only)

Typical Flow Rate:

C_v = 4.2 - 4.6 (Steam-Thru)

C_v = 5.2 - 8.0 (Steam-Thru II)

Sterilization:

Gamma: 50 kGy gamma irradiation

Autoclave: 265° F (129° C) for 30 minutes, up to two cycles (applies only to part numbers STC1700500-STC1700800)

SIP process:

266° F (130° C) for 60 minutes (Steam-Thru)

275° F (135° C) for 60 minutes (Steam-Thru II)

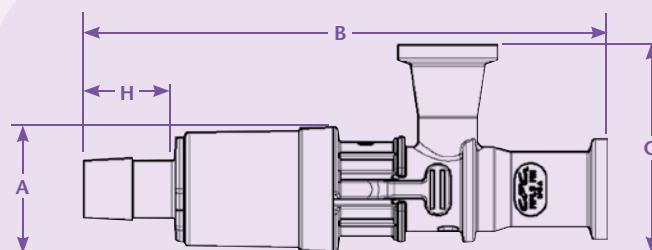
Tubing sizes:

3/8" to 1/2" ID, 9.5mm to 12.7mm ID (Steam-Thru)

1/2" ID, 12.7mm ID (Steam-Thru II)

Steam-Thru® Configurations

Steam-Thru® Connection's patented three-port design allows steam to pass directly through the lower ports to "steam on" to stainless equipment. After the SIP cycle is completed, the connector's valve is actuated, creating a sterile flow path to single-use systems.



F = Actuated Length

POLYSULFONE



**DESCRIPTION
WITH
POLYETHYLENE
SLEEVE**

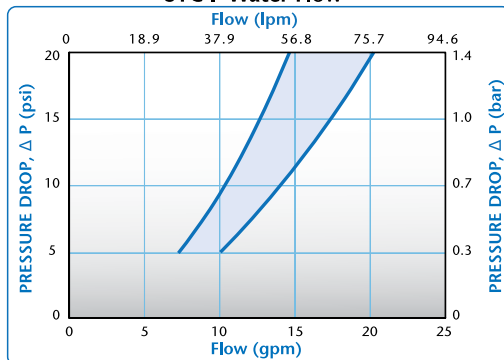
PART NO.	TERMINATIONS	A	B	F	G	H
STC1700000	3/4" x 3/4" sanitary x 1/2" HB	1.20 (30.5)	5.09 (129.3)	4.44 (112.8)	2.00 (50.8)	0.89 (22.6)
STC1700100	3/4" x 3/4" sanitary x 3/8" HB	1.20 (30.5)	4.80 (121.9)	4.15 (105.4)	2.00 (50.8)	0.60 (15.2)
STC1700200	3/4" x 1-1/2" sanitary x 1/2" HB	1.20 (30.5)	5.09 (129.3)	4.44 (112.8)	2.00 (50.8)	0.89 (22.6)
STC1700300	3/4" x 1-1/2" sanitary x 3/8" HB	1.20 (30.5)	4.80 (121.9)	4.15 (105.4)	2.00 (50.8)	0.60 (15.2)



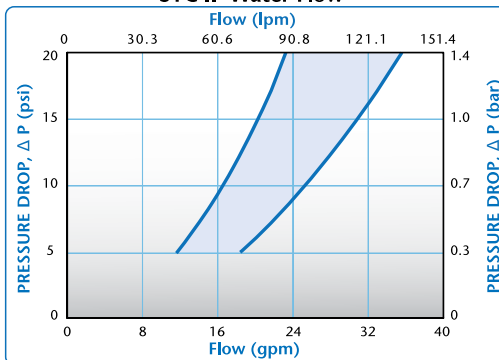
**DESCRIPTION
WITH
AUTOCLAVABLE
POLYCARBONATE
SLEEVE**

PART NO.	TERMINATIONS	A	B	F	G	H
STC1700500	3/4" x 3/4" sanitary x 1/2" HB	1.20 (30.5)	5.09 (129.3)	4.44 (112.8)	2.00 (50.8)	0.89 (22.6)
STC1700600	3/4" x 3/4" sanitary x 3/8" HB	1.20 (30.5)	4.80 (121.9)	4.15 (105.4)	2.00 (50.8)	0.60 (15.2)
STC1700700	3/4" x 1-1/2" sanitary x 1/2" HB	1.20 (30.5)	5.09 (129.3)	4.44 (112.8)	2.00 (50.8)	0.89 (22.6)
STC1700800	3/4" x 1-1/2" sanitary x 3/8" HB	1.20 (30.5)	4.80 (121.9)	4.15 (105.4)	2.00 (50.8)	0.60 (15.2)

STC I Water Flow



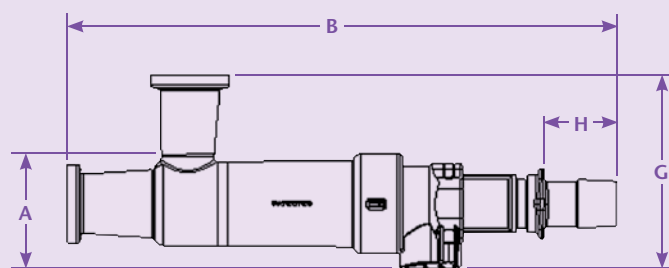
STC II Water Flow



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.

Steam-Thru II Configurations

Steam-Thru II Connections offer the flexibility of "steam on" and "steam off" functionality. The patented design allows the valve to be returned to the steam position enabling a second SIP cycle following media transfer. The "steam off" disconnection of single-use systems minimizes cross-contamination risks associated with reusable components.



F = Actuated Length

POLYSULFONE

TERMINATION

PART NO.	TERMINATIONS	A	B	F	G	H
STC2020000	3/4" x 3/4" sanitary x 1/2" HB	1.42 (36.1)	6.84 (173.7)	5.93 (150.6)	2.40 (61.0)	.88 (22.4)
STC2020100	3/4" x 3/4" sanitary x 3/8" HB	1.42 (36.1)	6.76 (171.7)	5.93 (150.6)	2.40 (61.0)	.80 (20.3)
STC2020200	3/4" x 1-1/2" sanitary x 1/2" HB	1.42 (36.1)	6.84 (173.7)	5.93 (150.6)	2.40 (61.0)	.88 (22.4)
STC2020300	3/4" x 1-1/2" sanitary x 3/8" HB	1.42 (36.1)	6.76 (171.7)	5.93 (150.6)	2.40 (61.0)	.80 (20.3)

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

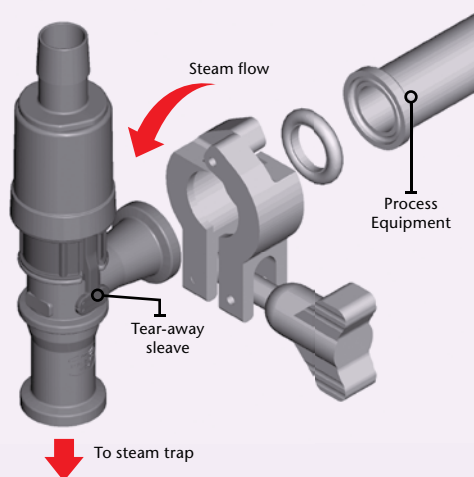


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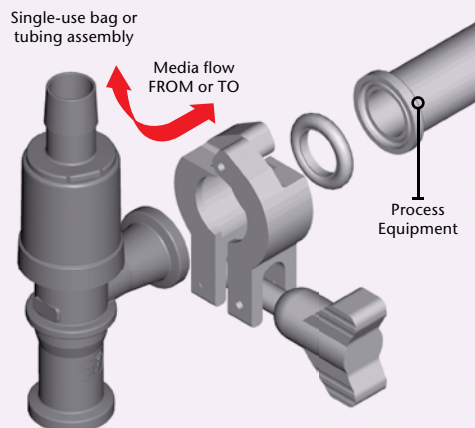
Steam-Thru Process

STEAM POSITION



Steam flows from the process equipment through the Steam-Thru to sterilize the connection. With the tear-away sleeve in place, the transfer of fluid to or from the bioreactor is prevented.

FLOW POSITION



When the tear-away sleeve is removed, the Steam-Thru is actuated, the connection to the steam trap is disabled and a sterile flow path is established between the process equipment and the single-use system.



DID YOU KNOW ... there are many advantages of single-use systems?

✓ Increase Productivity

The reliability of single-use systems results in increased productivity through the reduction of system downtime associated with cleaning and cleaning validation.

✓ Add Flexibility

Single-use systems can be easily modified for alternative media handling.

✓ Minimize Risk

The integration of single-use systems can help minimize the risk of media contamination in multi-product manufacturing.

✓ Reduce Cost

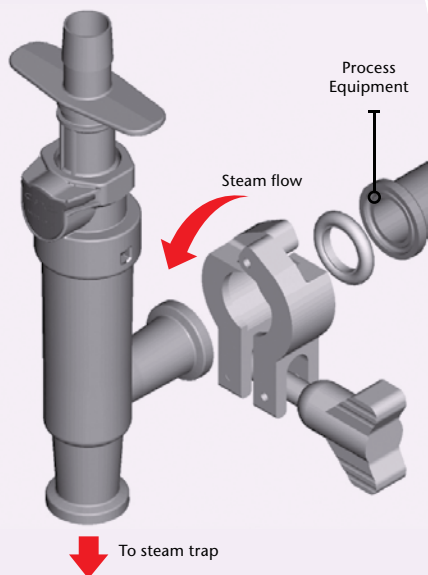
Cost savings include the reduced chemical and utility expenses of cleaning and labor.



Don't forget: you can access many feature articles on Single-Use technology at www.colder.com.

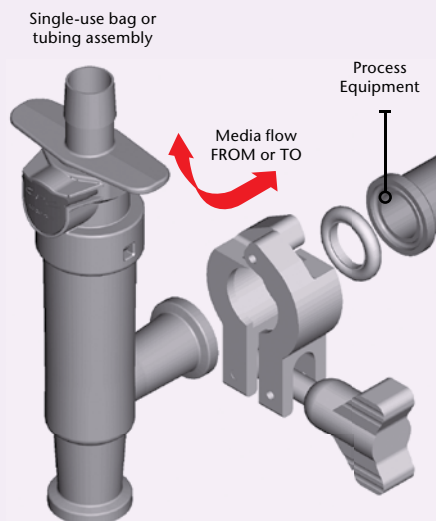
Steam-Thru II Process: An audible "click" and the visual indicator of the raised thumb latch provide assurance that the valve is locked in the flow or steam position.

STEAM ON POSITION



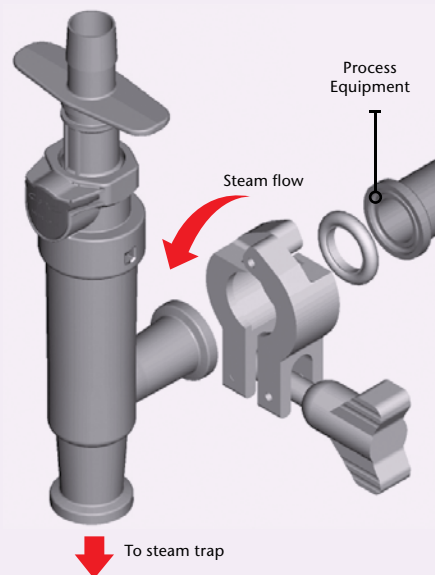
Steam flows from the process equipment through the Steam-Thru II creating a "steam on" sterile connection.

FLOW POSITION



Once the valve is locked in the flow position a sterile flow path has been created allowing media transfer.

STEAM OFF POSITION

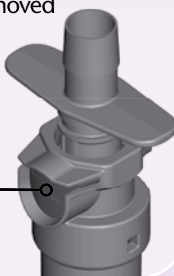


Once the valve is locked in the steam position, complete a second SIP cycle to "steam off" the connection.

TRANSITION TO FLOW

Once the "steam on" cycle is complete and the steam trap has been closed, simply press the thumb latch to allow the valve to be moved down to the flow position.

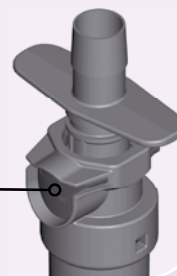
Thumb latch recessed during valve transition



TRANSITION TO STEAM

Once media transfer is complete, simply press the thumb latch to allow the valve to be moved back up to the steam position.

Thumb latch recessed during valve transition



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COLDER PRODUCTS COMPANY



Colder Products Company is a leader in design and manufacture of couplings and connectors for life sciences markets. Colder's connections ease biopharmaceutical manufacturers' transition between stainless processing equipment and single-use systems; whether in an upstream fermentation process or a downstream application in formulation or final fill. These innovative solutions help biopharmaceutical manufacturers improve production yields, decrease time-to-market and reduce costs.

Single-use systems minimize cross-contamination risks associated with reusable components. The reliability of single-use components results in increased productivity through the reduction of system downtime associated with cleaning and cleaning validation. Reducing downtime of key processes allows manufacturers to increase output while also decreasing time to market. They also minimize CIP validation, reduce WFI demand and lower operational costs.

Colder's wide variety of bioprocessing products provides quick and easy connections between flexible bag systems, tube sets, bioreactors and other bioprocess equipment. Steam-Thru® and SaniQuik™ connections ease the integration of single-use feed, harvest and sampling systems with existing processing equipment.

Founded in St. Paul, Minnesota in 1978, Colder offers more than 7,000 standard and custom products with direct sales and distributor representation in Asia, North America, Europe, Latin America and Australia.

Reliable, Flexible, Compatible, Sterile



Colder Products Company®
Quick Couplings & Fittings for Plastic Tubing

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