



## 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.

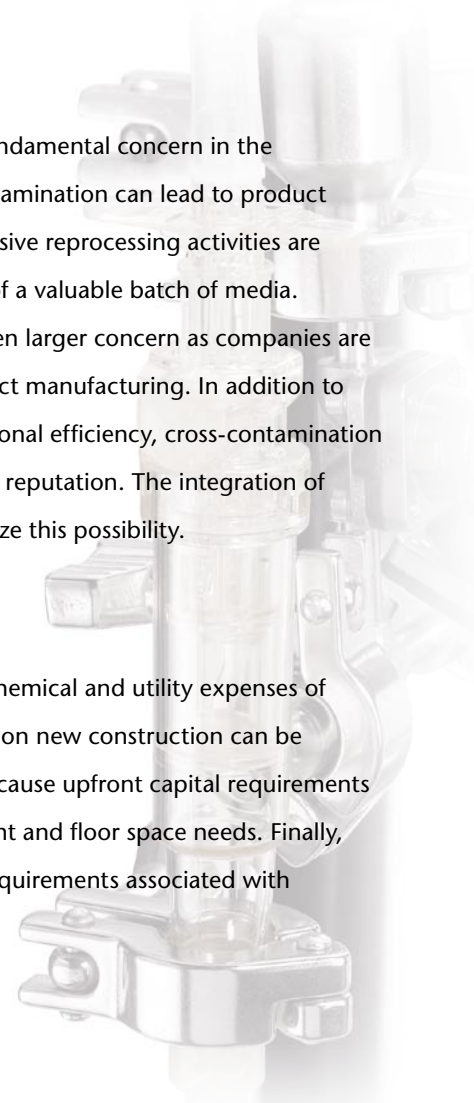
Implementing single-use technologies enables manufacturers to leverage existing equipment and increase production capacity without costly facility expansion.

### 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

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.

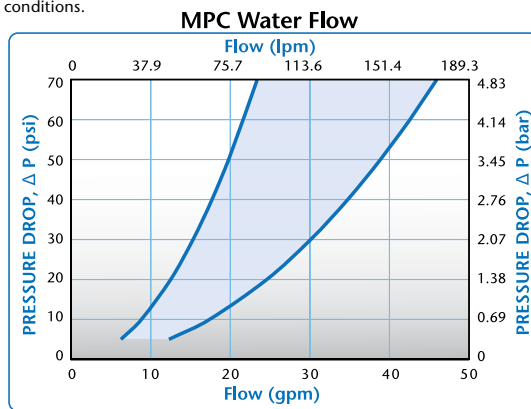
Polysulfone: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

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.

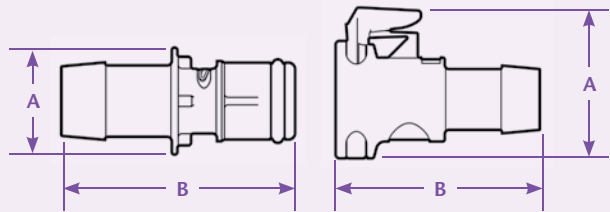
$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

Q=Flow rate in gallons per minute  
 C<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
<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)
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)
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.



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

Copyright © 2008 by Colder Products Company. All rights reserved. Colder Products Company, Colder Products and CPC are registered trademarks with the US Patent & Trademark Office.



# 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.

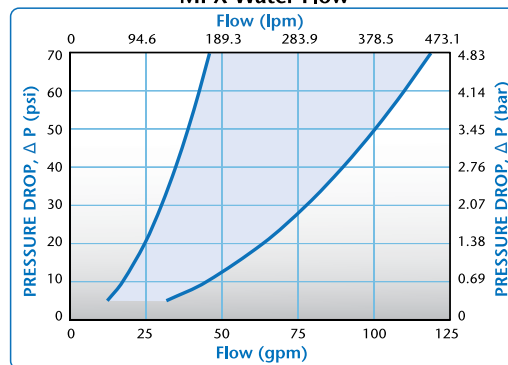
**Polysulfone:** Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

**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**

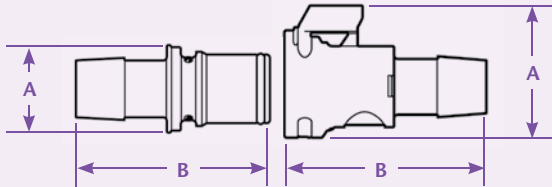
- Ergonomic thumb latch
- USP Class VI materials
- Sterilizable by autoclave, EtO, e-beam, or gamma
- Parting line-free hose barb

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



### Accessories

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



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

Copyright © 2008 by Colder Products Company. All rights reserved. Colder Products Company, Colder Products and CPC are registered trademarks with the US Patent & Trademark Office.

# SANIQUICK SERIES



Actual size

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)

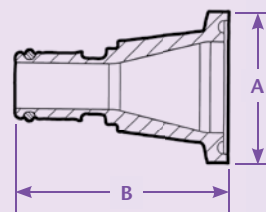
### Materials:

**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.

*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

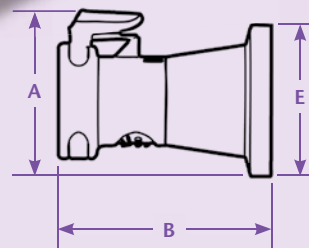
Compatible with MPC and MPX Series couplings

## 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.



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

Copyright © 2008 by Colder Products Company. All rights reserved. Colder Products Company, Colder Products and CPC are registered trademarks with the US Patent & Trademark Office.



# 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.

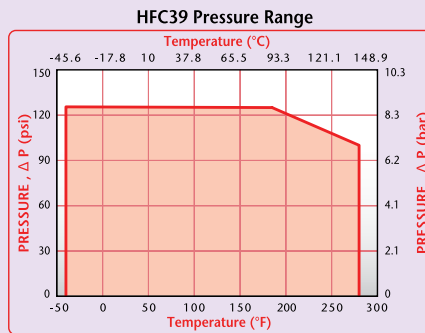
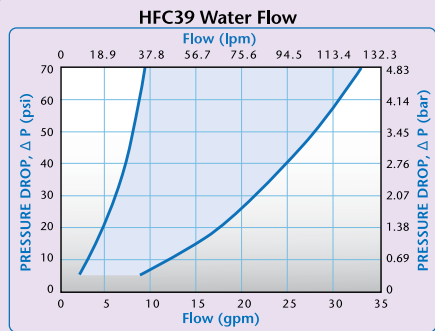
### Tubing Sizes:

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

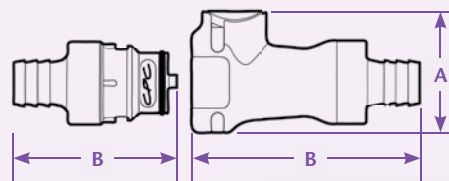
## Benefits

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

Actual size



## 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

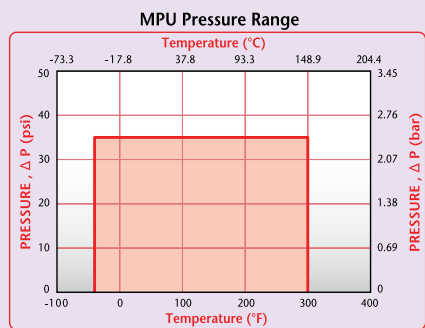
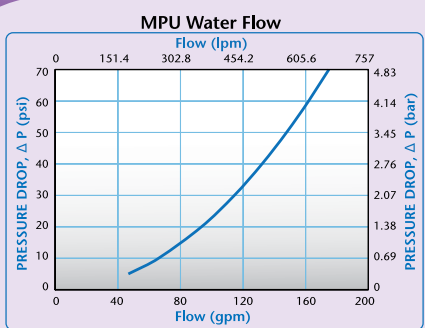
- 3/4" hose barb
- Locking feature
- Sharp barb end
- Shrouded, leak-free seal & smooth, internal flow path
- Lightweight

### Benefits

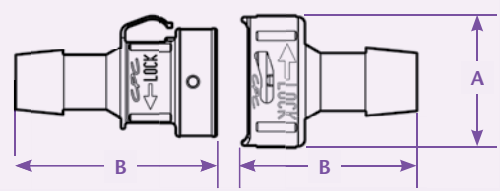
- Facilitates rapid fill and empty of bioprocessing bags
- Guards against accidental disconnect
- Minimizes fluid turbulence and dead space
- Protect valuable fluids and eliminate potential to contaminate fluid path
- Removes extra weight from assemblies

## 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



## 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.



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® 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

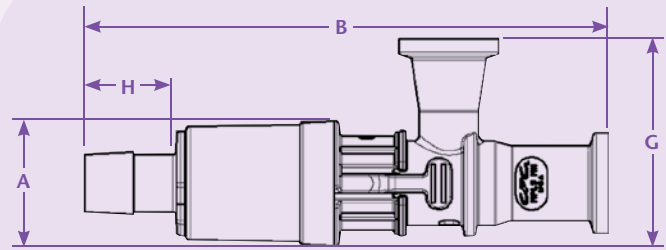
Provides visual indicator of process stage and secures valve position

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

Eliminates unnecessary cleaning procedures and validation issues

## Steam-Thru® 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

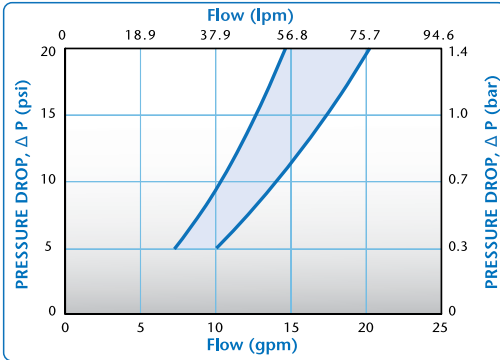


DESCRIPTION	PART NO.	TERMINATIONS	A	B	F	G	H
WITH POLYETHYLENE SLEEVE	STC1700000	3/4" x 3/4" sanitary x 1/2" HB	1.20 (30.5)	5.09 (129.3)	4.44 (112.8)	2.00 (50.8)	0.89 (22.6)
	STC1700100	3/4" x 3/4" sanitary x 3/8" HB	1.20 (30.5)	4.80 (121.9)	4.15 (105.4)	2.00 (50.8)	0.60 (15.2)
	STC1700200	3/4" x 1-1/2"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

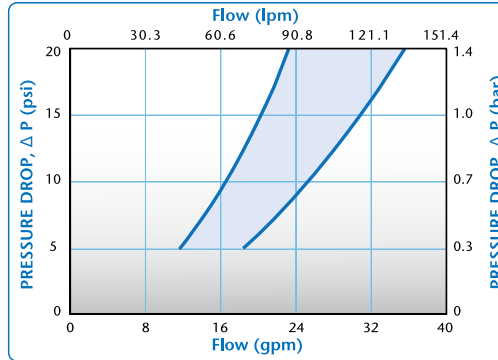


DESCRIPTION	PART NO.	TERMINATIONS	A	B	F	G	H
WITH AUTOCLAVABLE POLYCARBONATE SLEEVE	STC1700500	3/4" x 3/4" sanitary x 1/2" HB	1.20 (30.5)	5.09 (129.3)	4.44 (112.8)	2.00 (50.8)	0.89 (22.6)
	STC1700600	3/4" x 3/4" sanitary x 3/8" HB	1.20 (30.5)	4.80 (121.9)	4.15 (105.4)	2.00 (50.8)	0.60 (15.2)
	STC1700700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



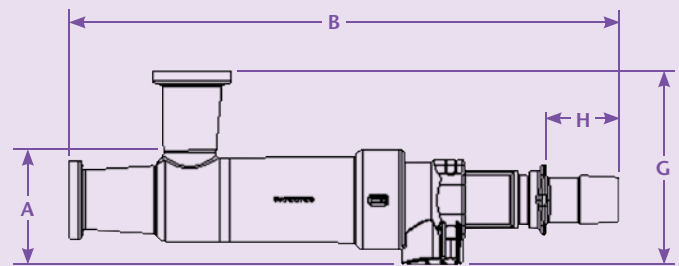
STC II Water Flow



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

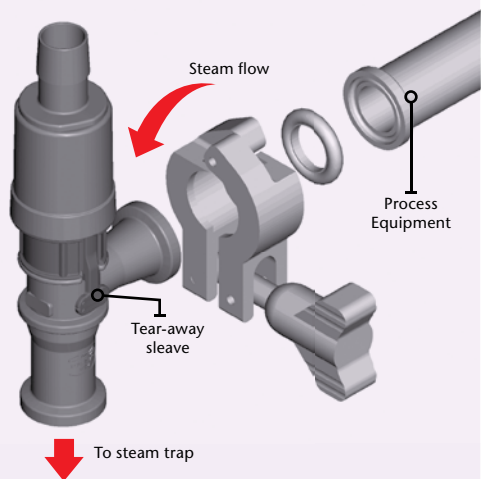


TERMINATION	PART NO.	TERMINATIONS	A	B	F	G	H
	STC2020000	3/4" x 3/4" sanitary x 1/2" HB	1.42 (36.1)	6.84 (173.7)	5.93 (150.6)	2.40 (61.0)	.88 (22.4)
	STC2020100	3/4" x 3/4" sanitary x 3/8" HB	1.42 (36.1)	6.76 (171.7)	5.93 (150.6)	2.40 (61.0)	.80 (20.3)
	STC2020200	3/4" x 1-1/2" sanitary x 1/2" HB	1.42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

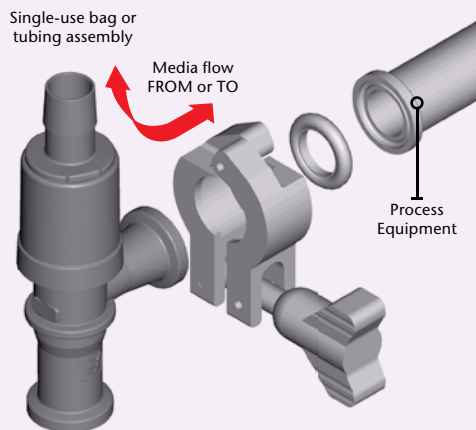
## Steam-Thru Process

### 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.

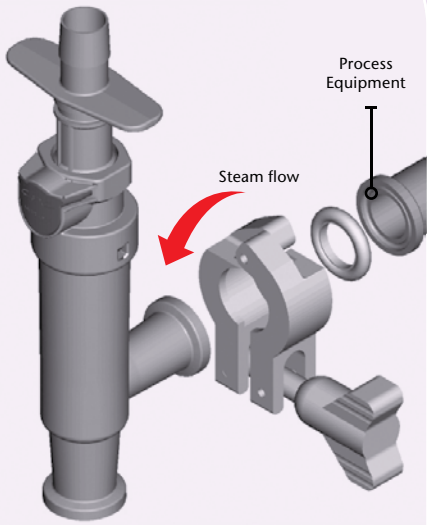
### ✓ Reduce Cost

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](http://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.

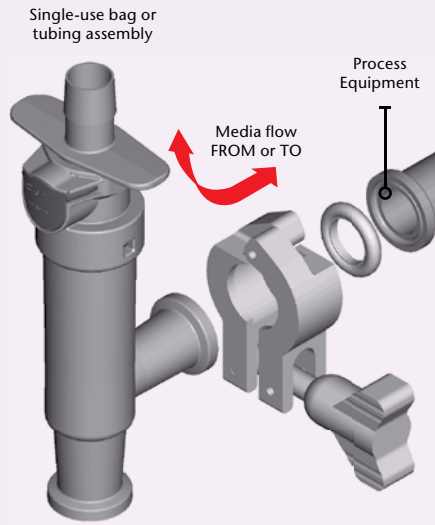
**STEAM ON POSITION**



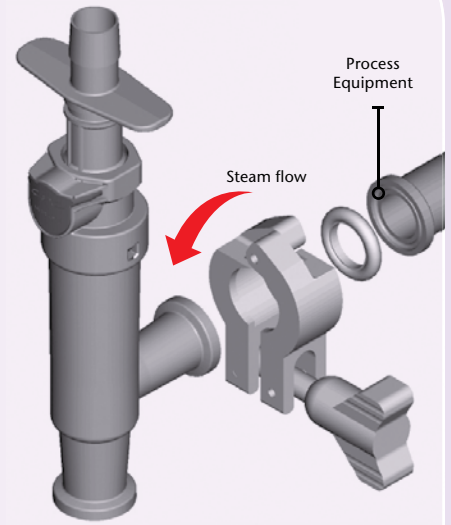
↓ To steam trap

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

**FLOW POSITION**



**STEAM OFF POSITION**



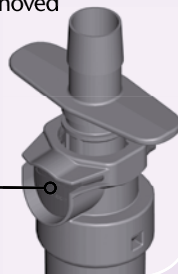
↓ To steam trap

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.

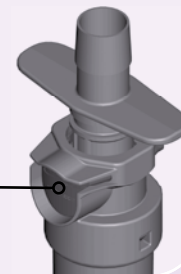
Thumb latch recessed during valve transition



**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



# 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**  
1001 Westgate Drive  
St. Paul, Minnesota 55114  
U.S.A.

Phone: 651-645-0091  
Fax: 651-645-5404  
Toll Free: 800-444-2474  
info@colder.com  
[www.colder.com](http://www.colder.com)

**Colder Products Company GmbH**  
Schmalweg 50  
D-55252 Mainz-Kastel  
Germany

Phone: +49-6134-2878-0  
Fax: +49-6134-287828  
cpcgmbh@colder.com  
[www.colder.com](http://www.colder.com)

**Colder Products Company Limited**  
Room 1503, 15/F, SBI Center  
54 – 58 Des Voeux Road Central  
Hong Kong

Phone: 852-2987-5272  
Fax: 852-2987-2509  
asiapacific@colder.com  
[www.colder.com](http://www.colder.com)

*Distributed BY:*

**Colder Patent Statement:** Colder Products Company takes pride in its innovative quick disconnect coupling solutions, many of which have been awarded United States and International patents. Colder Products Company has a strong tradition of leadership in the quick disconnect market, and aggressively pursues and protects its proprietary information and intellectual property. In cases where it is practical and as a benefit to its customers, Colder Products Company has licensed its proprietary technology. Please contact Colder Products to discuss your unique needs.

**CPC Warranty Statement:** Colder Products Company warrants its products against defects in workmanship and materials a period of 12 months from the date of sale by Colder Products Company to its initial customer (regardless of any subsequent sale of the products). This warranty is void if the product is misused, altered, tampered with or is installed or used in a manner that is inconsistent with Colder Product Company's written recommendations, specifications and/or instructions, or fails to perform due to normal wear and tear. Colder Products Company does not warrant the suitability of the product for any particular application. Determining product application suitability is solely the customer's responsibility. Colder Products Company is not liable for special, indirect, incidental, consequential or other damages including, but not limited to, loss, damage, personal injury, or any other expense directly or indirectly arising from the use of or inability to use its products either separately or in combination with other products. ALL OTHER WARRANTIES EXPRESS OR IMPLIED, WHETHER ORAL, WRITTEN OR IN ANY OTHER FORM, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED.

The sole and exclusive remedy under this warranty is limited, at the option of Colder Products Company, to replacement of the defective product or an account credit in the amount of the original selling price. All allegedly defective Colder Products Company products must be returned prepaid transportation to Colder Products Company, together with information describing the product's application and performance, unless otherwise authorized in writing by Colder Products Company.

**WARNING:** Due to the wide variety of possible fluid media and operating conditions, unintended consequences may result from the use of this product, all of which are beyond the control of Colder. It is the user's responsibility to carefully determine and test for compatibility for use with their application. All such risks shall be assumed by the buyer.

