CPC®

A DOVER® COMPANY

CONNECTION SOLUTIONS for BIOPHARMACEUTICAL PROCESSES

Confidence at every point of connection

CPC (Colder Products Company) is the leader in the design and manufacture of single-use connection technology and connectors for the life sciences markets. CPC offers a wide variety of bioprocessing solutions including sterile connect, sterile disconnect, SIP connections and quick connects. Our innovative designs provide flexibility for biopharmaceutical manufacturers to easily combine multiple components, single-use or hybrid systems including process containers, tubing manifolds, transfer lines, bioreactors and other bioprocess equipment.

Robust and easy-to-use single-use connectors from CPC maintain flow path sterility and integrity while enabling biopharmaceutical manufacturers to improve production yields, decrease time-to-market and reduce costs. Our genderless sterile connectors simplify process integration, maximize flexibility and streamline supply chain efficiencies.

CPC makes people's lives better by developing innovative high quality products that make fluid handling safe and easy.

HOW TO CONTACT

Contact CPC's Bio Customer Fulfillment team at 1-800-519-7633. You can also visit cpcworldwide.com/bio or send an email to CPCBio@cpcworldwide.com.

QUALITY

CPC meets or exceeds our customers' expectations. Everyone is involved, from our suppliers to our distribution network, and most important, our employees. CPC measures and continually improves our standards of product quality, support services and overall customer and employee satisfaction. CPC's Quality System conforms to ISO 9001:2015 and ISO 13485 standards. Products for bioprocessing applications are manufactuered in our ISO Class 7 certified cleanroom.

INTRODUCTION

Understanding Single-Use

WHAT IS SINGLE-USE

Plastic-based processing equipment consisting of key components including bags, tubing, filters and connection technologies used in the development and production of biopharmaceutical drugs.

WHY SINGLE-USE

Increasing global demand for new biologics, vaccines and cell therapies is driving manufacturers to replace traditional stainless equipment with single-use systems. The need to produce multiple drugs within a single facility and the evolving demand for biosimiliars (biogenerics) are drivers for implementing single-use or hybrid systems (that combine both stainless- and plastic-based process technologies).

BENEFITS OF SINGLE-USE

OPERATIONAL EFFICIENCIES	Increases flexibility and faster batch turnaround.
COST EFFECTIVENESS	Minimizes cleaning and validation requirements.
ECONOMIC ADVANTAGES	Reduces capital expenditures and facility footprints.
SAFETY AND QUALITY	Improves sterility assurance while decreasing the risk of cross-contamination and product loss.
FLEXIBILITY	Facilitates multi-drug production and fast product changeover.
SUSTAINABILITY	Consumes less water, energy and chemicals when compared to stainless-based processing. Single-use plastic waste is an excellent fuel source for waste-to-energy conversion.

CPC'S ROLE IN SINGLE-USE

Drug manufacturers receive a wide range of single-use subsystems including bags, tubing manifolds and filter assemblies to create their desired production process. CPC offers the widest range of single-use connection solutions to reliably bring these technologies together while maintaining the sterility and integrity of the overall system. Our connectors are used throughout upstream and downstream unit operations, and have become an industry standard over the past 20 years.

WHAT IS A CLOSED SYSTEM

A process or processing equipment that maintains a sterile barrier between the media/drug product and the external environment. A closed system reduces risks and increases safety by maintaining flow path sterility and media integrity.

HOW DOES CPC ENABLE CLOSED SYSTEMS

CPC's broad line of sterile connect and disconnect technologies allow closed pre-sterilized single-use assemblies to be brought together to form a complete system. AseptiQuik offers closed connection options from 1/8-to 1-inch tubing. CPC's award winning Steam-Thru technology creates a sterile connection between stainless equipment and single-use to effectively close hybrid systems.

VISIT US ONLINE FOR INTERACTIVE WEB TOOLS

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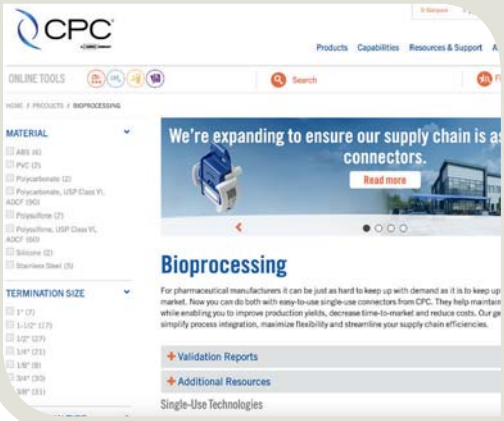

ALSO ON THE WEB

- Validation Test Reports
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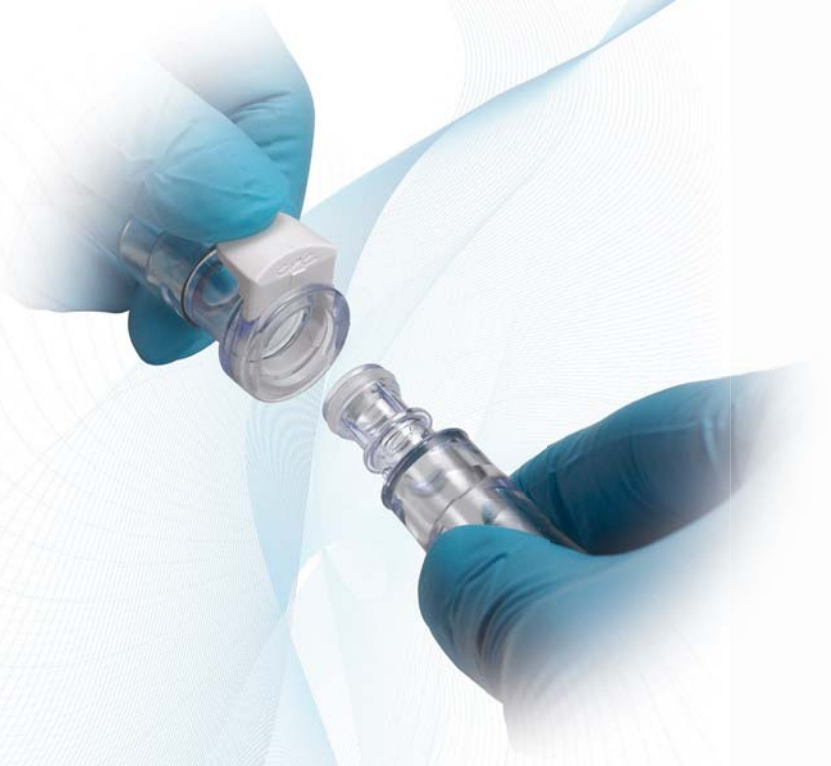
LEGEND

Straight-Through | Single Shut-Off | Double Shut-Off | Non-Spill

Note: Product images may not be to scale

MPC SERIES CONNECTOR



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.

FEATURES	BENEFITS
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

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

Locking sleeves:
Polysulfone (white), USP Class VI , ADCF

Thumb Latches:
Polycarbonate (white), USP Class VI, ADCF
PVDF (white), 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), 30 minutes, up to 10 repetitions. Sterilize uncoupled only.

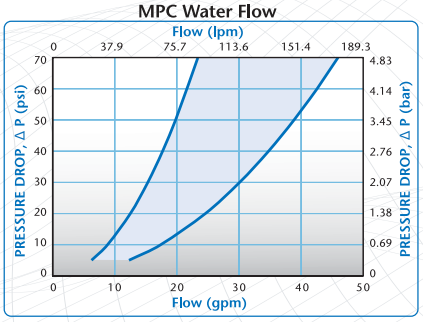
Polysulfone: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

TUBING SIZES:

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

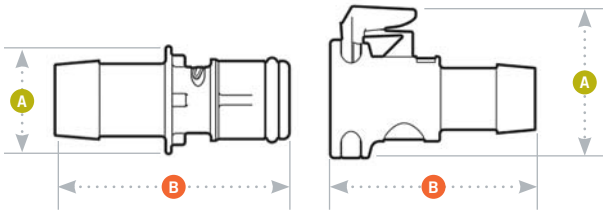
***WARNING**: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.*

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.



MPC SERIES CONNECTOR DIMENSIONS

A = Height/Diameter
B = Total Length



A = Height/Diameter
B = Total Length

Coupling Bodies

• POLYCARBONATE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
IN-LINE HOSE BARB	1/8" ID	3.2mm ID	.09"	MPC17002T03	.96 (24.4)	1.10 (27.9)
	1/4" ID	6.4mm ID	.21"	MPC17004T03	.96 (24.4)	1.10 (27.9)
	3/8" ID	9.5mm ID	.29"	MPC17006T03	.96 (24.4)	1.10 (27.9)
IN-LINE HOSE BARB WITH LOCK	1/8" ID	3.2mm ID	.09"	MPCK17002T03	.99 (25.2)	1.10 (27.9)
	1/4" ID	6.4mm ID	.21"	MPCK17004T03	.99 (25.2)	1.30 (33.0)
	3/8" ID	9.5mm ID	.29"	MPCK17006T03	.99 (25.2)	1.30 (33.0)

• POLYSULFONE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
IN-LINE HOSE BARB	1/8" ID	3.2mm ID	.09"	MPC17002T39	.96 (24.4)	1.10 (27.9)
	1/4" ID	6.4mm ID	.21"	MPC17004T39	.96 (24.4)	1.10 (27.9)
	3/8" ID	9.5mm ID	.29"	MPC17006T39	.96 (24.4)	1.10 (27.9)
IN-LINE HOSE BARB WITH LOCK	1/8" ID	3.2mm ID	.09"	MPCK17002T39	.99 (25.2)	1.10 (27.9)
	1/4" ID	6.4mm ID	.21"	MPCK17004T39	.99 (25.2)	1.30 (33.0)
	3/8" ID	9.5mm ID	.29"	MPCK17006T39	.99 (25.2)	1.30 (33.0)

Coupling Inserts

• POLYCARBONATE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE HOSE BARB	1/8" ID	3.2mm ID	.09"	MPC22002T03M	Silicone Seal USP Class VI	.60 (15.2)	1.10 (27.9)
	1/4" ID	6.4mm ID	.21"	MPC22004T03M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
	3/8" ID	9.5mm ID	.29"	MPC22006T03M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)

• POLYSULFONE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE HOSE BARB	1/8" ID	3.2mm ID	.09"	MPC22002T39M	Silicone Seal USP Class VI	.60 (15.2)	1.10 (27.9)
	1/4" ID	6.4mm ID	.21"	MPC22004T39M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)
	3/8" ID	9.5mm ID	.29"	MPC22006T39M	Silicone Seal USP Class VI	.60 (15.2)	1.30 (33.0)

MPC SERIES CONNECTOR (cont.)

Mating Parts

SEALING CAP	SEALING CAP W/LOCK	MATERIAL	A	B
MPC32003	MPCK32003	Polycarbonate	.96 (24.4)	1.30 (33.0)
MPC32039	MPCK32039	Polysulfone	.99 (25.2)	1.30 (33.0)

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)

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

Note: MPC Series mates with Back-to-Back Adapters (page 9), Sanitary Series and SaniQuik™ (pages 12-15).

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	BENEFITS
Compatible with MPC and MPX Series inserts	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 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)

Back-To-Back Body Adapters

• POLYCARBONATE

PART NO.	TYPE	A	B
MPC17C1703	MPC to MPC	.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)

• POLYSULFONE

PART NO.	TYPE	A	B
MPC17C1739	MPC to MPC	.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)

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
PVDF (white), USP Class VI, ADCF

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

STERILIZATION:

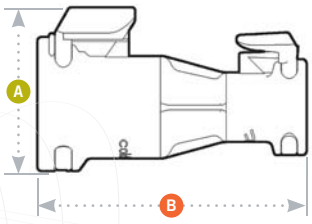
Gamma: Up to 50 kGy irradiation

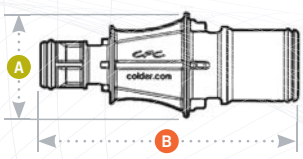
Autoclave:
Polycarbonate: Up to 250°F (121°C) for 30 minutes, up to 10 repetitions.
Sterlize uncoupled only.

Polysulfone: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions.
Sterlize 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 6-11).





A = Height/Diameter
B = Total Length

MPX SERIES CONNECTOR

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	BENEFITS
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

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

Locking sleeves:
PVDF (white), USP Class VI, ADCF

Thumb Latches:
Polycarbonate (white), USP Class VI, ADCF
PVDF (white), USP Class VI, ADCF

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

STERILIZATION:

Gamma: Up to 50 kGy irradiation

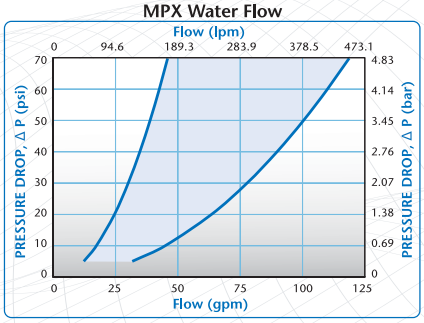
Autoclave:
Polycarbonate: Up to 250°F (121°C), 30 minutes, up to 10 repetitions. Sterilize uncoupled only.

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

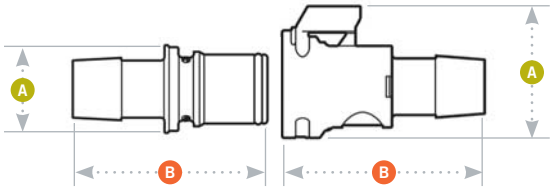
TUBING SIZES: 3/8" to 1/2" ID (9.5mm to 12.7mm)

***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.*

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.



MPX SERIES CONNECTOR DIMENSIONS



A = Height/Diameter
B = Total Length

Coupling Bodies

• POLYCARBONATE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
IN-LINE HOSE BARB	1/2" ID	12.7mm ID	.50"	MPX17803	1.28 (32.5)	1.96 (49.8)
IN-LINE HOSE BARB WITH LOCK	1/2" ID	12.7mm ID	.50"	MPXK17803	1.28 (32.5)	1.96 (49.8)

• POLYSULFONE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
IN-LINE HOSE BARB	1/2" ID	12.7mm ID	.50"	MPX17839	1.28 (32.5)	1.96 (49.8)
IN-LINE HOSE BARB WITH LOCK	1/2" ID	12.7mm ID	.50"	MPXK17839	1.28 (32.5)	1.96 (49.8)

Coupling Inserts

• POLYCARBONATE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE HOSE BARB	3/8" ID	9.5mm ID	.38"	MPX22603M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)
	1/2" ID	12.7mm ID	.50"	MPX22803M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)

• POLYSULFONE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE HOSE BARB	3/8" ID	9.5mm ID	.38"	MPX22639M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)
	1/2" ID	12.7mm ID	.50"	MPX22839M	Silicone Seal USP Class VI	.85 (21.6)	1.90 (48.3)

Mating Parts

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

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

Note: MPX Series mates with Back-to-Back Adapters (page 9), Sanitary Series and SaniQuik™ (pages 12-15).

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

SANITARY SERIES CONNECTOR

Specifications

PRESSURE:

Vacuum to 60 psi, 4.1 bar

TEMPERATURE:

-40°F to 300°F (-40°C to 149°C)

MATERIALS:

Main components:
Polysulfone (amber tint), USP Class VI, ADCF

Thumb Latches:
PVDF (white), USP Class VI, ADCF

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

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 SIZES:

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

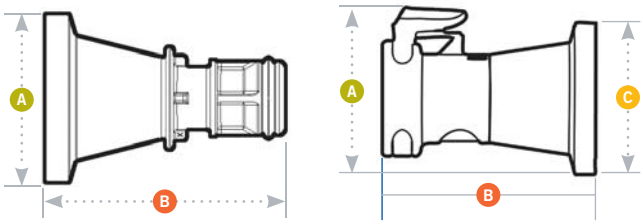
***WARNING**: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.*

Sanitary couplings 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.

Note:
Mates with MPC and MPX bodies, inserts and sealing caps and plugs and Back-to-Back Adapters (pages 6-11).

FEATURES	BENEFITS
3/4", 1" and 1-1/2" sanitary terminations	Install to equipment with sanitary gaskets and sanitary clamps
Compatible with MPC and MPX Series couplings	Quick and easy connections to industry standard plastic couplings on single-use bags and tube sets
Integral coupling adaptor	Provides flexibility to easily convert sanitary terminations on filter cartridge or equipment
ADCF-free materials	Meet BSE/TSE requirements

SANITARY SERIES CONNECTOR DIMENSIONS



A = Height/Diameter
B = Total Length
C = Outside Diameter

Coupling Bodies • POLYSULFONE

PART NO.	SIZE	A	B	C
MPC3301239	3/4"	.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	O-RING	A	B
MPC44012T39M	3/4"	Silicone Seal USP Class VI	.98 (24.9)	1.40 (35.6)
MPC44024T39M	1-1/2"	Silicone Seal USP Class VI	1.98 (50.3)	1.40 (35.6)
MPX44012T39M	3/4"	Silicone Seal USP Class VI	.98 (24.9)	1.71 (43.4)
MPX44024T39M	1-1/2"	Silicone Seal USP Class VI	1.98 (50.3)	1.71 (43.4)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Note: Sanitary couplings are compatible with both stainless steel and plastic clamps. Clamps and gaskets are referenced for illustration and are not available through CPC.

SANIQUIK™ SERIES CONNECTOR

Specifications

PRESSURE:
Vacuum to 60 psi, 4.1 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, ADCF

STERILIZATION: Autoclave

TERMINATION SIZES:
3/4" and 1-1/2" sanitary

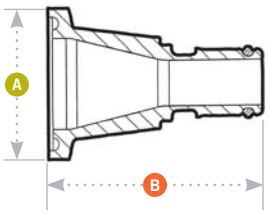
***WARNING**: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.*

CPC'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 with CPC disposable coupling bodies. SaniQuik connections reduce sanitary gasket replacement, enabling cost-effective media transfer solutions for feeding, harvesting or sampling applications.

Note:
Mates with MPC and MPX bodies, inserts and sealing caps and plugs and Back-to-Back Adapters (pages 6-11).

FEATURES	BENEFITS
3/4" and 1-1/2" sanitary standard terminations	Connect to hard plumbed systems with sanitary gaskets and sanitary clamps
Compatible with MPC and MPX Series couplings	Quick and easy connections to industry standard plastic couplings on single-use bag and tube sets
Integral coupling adaptor	Disconnecting coupling reduces sanitary gasket replacement
ADCF-free materials	Meet BSE/TSE requirements

SANIQUIK™ SERIES CONNECTOR DIMENSIONS



A = Height/Diameter
B = Total Length

Connections • 316L STAINLESS

DESCRIPTION	PART NO.	MATING COUPLING	SANITARY SIZE	SANITARY BORE	A	B
SILICONE SEAL USP CLASS VI	SQCC221212M	MPC Series	3/4"	3/4"	.98" (24.9)	1.39" (35.3)
	SQCC222424M	MPC Series	1-1/2"	1-1/2"	1.98" (50.3)	1.50" (38.1)
	SQCX221212M	MPX Series	3/4"	3/4"	.98" (24.9)	1.43" (39.1)
	SQCX222416M	MPX Series	1-1/2"	1"	1.98" (50.3)	1.50" (38.1)
	SQCX222424M	MPX Series	1-1/2"	1-1/2"	1.98" (50.3)	1.50" (38.1)

Accesories • SILICONE (CLEAR)

DESCRIPTION	PART NO.	MATING SANIQUIK
PLATINUM-CURED USP CLASS VI REPLACEMENT SEALS	2260100	SQCC221212M, SQCC222424M
	2260200	SQCX221212M, SQCX222416M, SQCX222424M

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

NOTES:

MPU SERIES CONNECTOR

Specifications

PRESSURE:
Vacuum to 35 psi, 2.4 bar

TEMPERATURE:
-40°F to 300°F (-40°C to 149°C)

MATERIALS:
Main components:
Polysulfone (amber tint), USP Class VI, ADCF

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

STERILIZATION:
Gamma: Up to 50 kGy irradiation

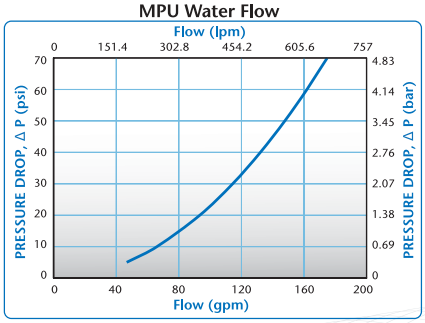
Autoclave: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

TUBING SIZES: 3/4" ID (19.0 mm)

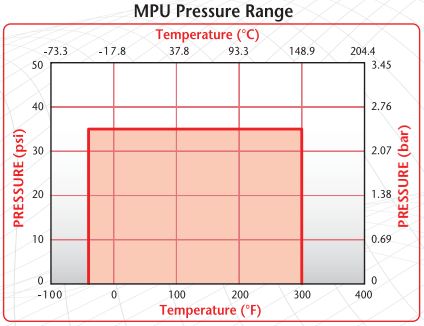
***WARNING**: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.*

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.

MPU Water Flow



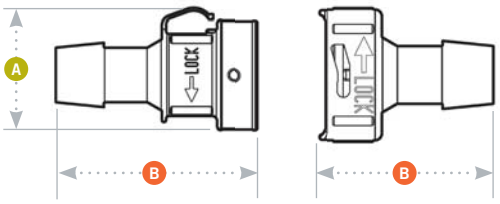
MPU Pressure Range



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	BENEFITS
3/4" hose barb	Facilitates rapid fill and empty of bioprocessing bags
Locking feature	Guards against accidental disconnects
Sharp barb end	Minimizes fluid turbulence and dead space
Shrouded, leak-free seal & smooth, internal flow path	Protect valuable fluids and eliminate potential to contaminate fluid path
ADCF-free materials	Meet BSE/TSE requirements

MPU SERIES CONNECTOR 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	19.0mm ID	.71"	MPU171239	1.75 (44.5)	2.37 (60.2)

Coupling Inserts • POLYSULFONE

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
IN-LINE HOSE BARB	3/4'' ID	19.0mm ID	.71"	MPU221239M	Silicone Seal USP Class VI	1.56 (39.6)	2.88 (73.2)

Accessories • POLYSULFONE

			A	B
SEALING CAP MPU32039		MATERIAL Polysulfone USP Class VI	1.75 (44.5)	.79 (20.1)
SEALING PLUG MPU30039M	O-RING Silicone Seal	MATERIAL Polysulfone USP Class VI	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.

HFC39 SERIES CONNECTOR

Specifications

PRESSURE:

Vacuum to 125 psi, 8.6 bar

TEMPERATURE:

-40°F to 280°F (-40°C to 138°C)

MATERIALS:

Main components:
Polysulfone (amber tint), USP Class VI, ADCF

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

Springs: 316L stainless steel

STERILIZATION:

Gamma: Up to 50 kGy irradiation. Sterilize coupled or uncoupled.

Autoclave: Up to 270°F (132°C) for 60 minutes. Up to 25 repetitions for uncoupled units and up to one repetition for coupled units.

TERMINATION SIZES:

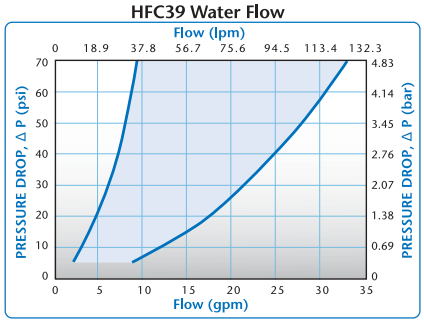
1/4", 3/8" and 1/2" ID hose barb
(6.4mm, 9.5mm and 12.7mm)

These graphs are 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.

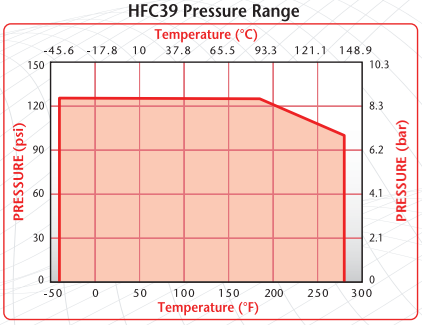
HFC39 Series sterile disconnect couplings prevent external organisms from entering into the media flow path upon disconnection. Automatic shutoff valves close off the flow path aseptically protecting valuable media while also eliminating the need for pinch clamps and tube welders. The easy-to-use thumb latch design provides a secure, leak-free connection and enables one-hand disconnects.

FEATURES	BENEFITS
Simple one-step disconnection	Maintains media sterility in each half by preventing external organisms from entering the flow path
Automatic shutoff valves	Stop flow and eliminate need for pinch clamps
CPC Click	Audible confirmation of secure connection
Lightweight	Easy integration with single-use assemblies
ADCF-free materials	Meet BSE/TSE requirements

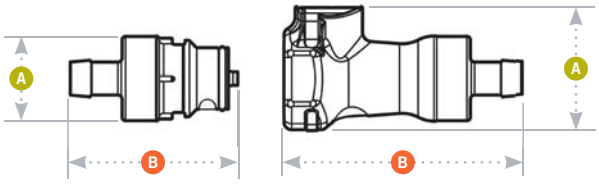
HFC39 Water Flow



HFC39 Pressure Range



HFC39 SERIES DIMENSIONS



A = Height/Diameter
B = Total Length

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)

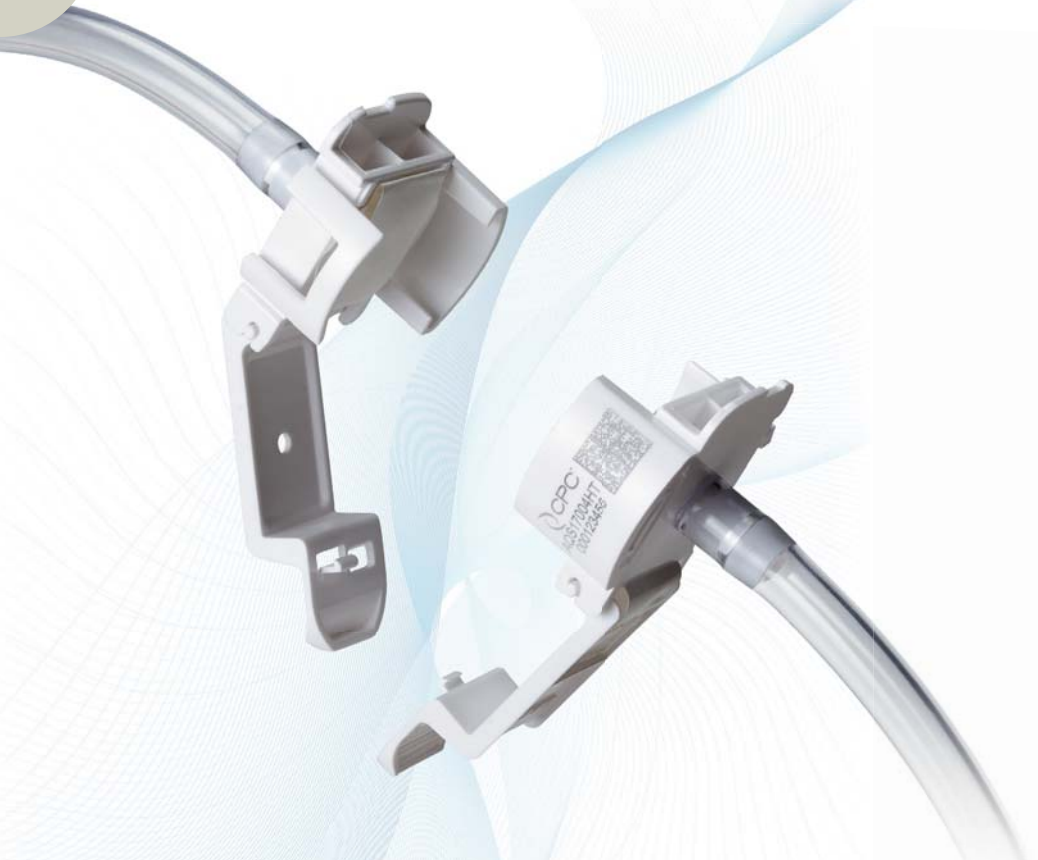
Mating Parts

SEALING CAP	O-RING	MATERIAL	A	B
HFC32039		Polysulfone	1.44 (36.6)	2.73 (69.3)
SEALING PLUG				
HFC30039M	Silicone Seal USP Class VI	Polysulfone	1.00 (25.4)	1.81 (46.0)

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.

For validation reports, visit cpcworldwide.com/bio and for extractables data contact CPCBio@cpcworldwide.com

ASEPTIQUIK® S SERIES CONNECTORS



AseptiQuik® S Small Format Connectors provide quick and easy sterile connections for small-flow applications, even in non-sterile environments. The "FLIP-CLICK-PULL" design of AseptiQuik S enables users to easily transfer small volumes of media with less risk of operator error. The connector's genderless and robust design provides reliable performance without the need for clamps, fixtures or tube welders. Biopharmaceutical manufacturers can now make 1/8", 1/4" and 3/8"hose barb and 1/4" and 3/4" sanitary sterile connections with the quality and market availability they expect from the leader in single-use connection technology.

Specifications

PRESSURE:

Up to 60 psi, 4.1 bar

TEMPERATURE:

39°F to 104°F (4°C to 40°C)

STERILIZATION:

Gamma: Up to 50kGy irradiation

AutoClave High Temp (HT) Version:
Up to 266°F (130°C) for 60 minutes

TERMINATION SIZES:

1/8", 1/4" and 3/8" ID hose barb (3.2mm, 6.4mm and 9.5mm), 1/4" and 3/4" sanitary and MPC insert

MATERIALS:

Main Components:
Polycarbonate (white), USP Class VI, ADCF

Pull Tabs/Caps:
Polycarbonate (blue, standard version), USP Class VI, ADCF

Polycarbonate (white, HT version), USP Class VI, ADCF

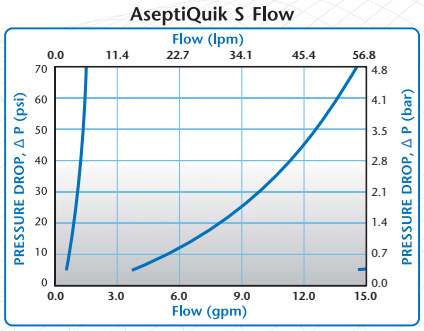
Seals:
Silicone (clear), platinum-cured, USP Class VI, ADCF

Membrane:
Polyethylene (standard version), USP Class VI, ADCF

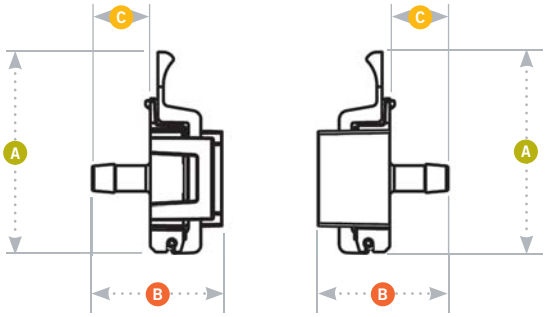
Hydrophobic polyethersulfone (HT version), USP Class VI, ADCF, PTFE strip sticker

FEATURES	BENEFITS
Genderless design	Eases single-use systems specifications with one part number for both halves
Robust construction	Repeatable and reliable performance with no additional hardware required
FLIP-CLICK-PULL	Intuitive three-step connection process reduces risk of operator error
Integrated pull tab covers	Provide pre-assembly protection and ensure simultaneous removal of both membranes
CPC Click	Audible confirmation of assembly with no additional hardware required
1/4 sanitary termination with straight bore	Minimizes transitional flow disruptions throughout upstream processing

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.



ASEPTIQUIK® S SERIES DIMENSIONS



A = Height/Diameter
B = Total Length
C = Hose Barb Length

For validation reports, visit cpcworldwide.com/bio and for extractables data, contact CPCBio@cpcworldwide.com

Coupling Bodies

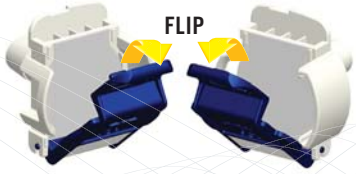
• POLYCARBONATE *with Blue Pull Tabs*

TERMINATION	PART NO.	A	B	C
1/8" HOSE BARB	AQS17002	2.25	1.30	0.50
1/4" HOSE BARB	AQS17004	2.25	1.45	0.65
1/4" SANITARY	AQS33004	2.25	1.50	0.70
3/8" HOSE BARB	AQS17006	2.25	1.45	0.65
3/4" SANITARY	AQS33012	2.25	1.60	0.80
MPC INSERT	AQS17MPC	2.25	1.49	0.69

• POLYCARBONATE *HT with White Pull Tabs*

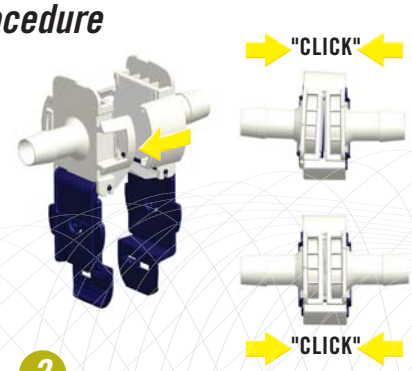
TERMINATION	PART NO.	A	B	C
1/8" HOSE BARB	AQS17002HT	2.25	1.30	0.50
1/4" HOSE BARB	AQS17004HT	2.25	1.45	0.65
1/4" SANITARY	AQS33004HT	2.25	1.50	0.70
3/8" HOSE BARB	AQS17006HT	2.25	1.45	0.65
3/4" SANITARY	AQS33012HT	2.25	1.60	0.80
MPC INSERT	AQS17MPCHT	2.25	1.49	0.69

FLIP-CLICK-PULL Assembly Procedure



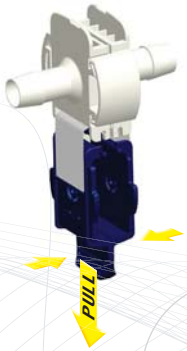
1

Unsnap and flip down the protective pull tab covers on each connector half.



2

Align the connector halves with the pull tabs hanging down. Slide the two halves together. Independently squeeze each side of the connector until you hear an audible “CPC Click."



3

To complete the connection, simply snap the pull tabs together by pushing on the CPC logos and pull the membranes from the connector.

ASEPTIQUIK® G SERIES CONNECTORS

Genderless AseptiQuik® G Connectors enable quick and easy sterile connections, even in non-sterile environments. The easy-to-use genderless design simplifies system integration and minimizes the risk of operator error. The connectors' robust construction provides enhanced user confidence and reliable performance without the need for clamps, fixtures or tube welders. Biopharmaceutical manufacturers benefit from a full range of interchangeable 1/4" to 1-1/2" flow solutions with the quality and market availability they expect from the leader in single-use connection technology.

FEATURES	BENEFITS
Genderless design	Eases integration of single-use systems with one part number for both halves
Robust construction	Repeatable and reliable performance with no additional hardware required
FLIP-CLICK-PULL	Innovative three-step connection process reduces risk of operator error
Integrated pull tab covers	Pull tabs act as protective cover reducing part complexity and ensure simultaneous removal of both membranes
CPC Click	Audible confirmation of assembly

Specifications

PRESSURE:

Up to 60 psi, 4.1 bar
Up to 75 psi, 5.1 bar for 48 hours

TEMPERATURE:

34°F to 104°F (1°C to 40°C)

STERILIZATION:

Gamma: Up to 50kGy irradiation

Autoclave High Temp (HT) Version:
Up to 266°F (130°C) for 60 minutes

TERMINATION SIZES:

1/4", 3/8", 1/2", 3/4" ID hose barb (6.4mm, 9.5mm, 12.7mm, 19.0mm) and 3/4", 1-1/2" sanitary

MATERIALS:

Main Components:
Polycarbonate (white), USP Class VI, ADCF

Pull Tabs/Caps:
Polycarbonate (blue, standard version), USP Class VI, ADCF
Polycarbonate (white, HT version), USP Class VI, ADCF

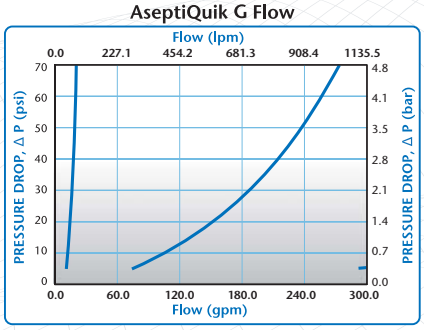
Seals:
Silicone (clear), platinum-cured, USP Class VI, ADCF

Membrane:
Polyethylene (standard version), USP Class VI, ADCF
Hydrophobic polyethersulfone (HT version), USP Class VI, ADCF, PTFE strip sticker

Genderless interface allows easy transition between multiple tubing sizes from 1/4" to 1-1/2".

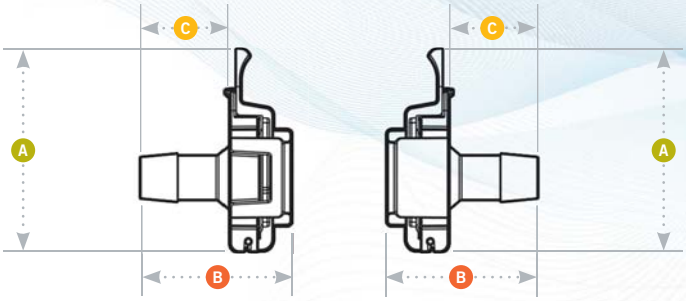
This graph is intended to give you a general idea of the performance capabilities of each product line. The shaded area of the graph represents the operating range of the product family, i.e. upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

AseptiQuik G Flow



ASEPTIQUIK® G SERIES DIMENSIONS

A = Height/Diameter
B = Total Length
C = Hose Barb Length



Coupling Bodies

• POLYCARBONATE *with Blue Pull Tabs*

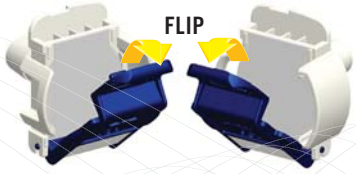
TERMINATION	PART NO.	A	B	C
1/4" HOSE BARB	AQG17004	2.62	1.62	0.82
3/8" HOSE BARB	AQG17006	2.62	1.62	0.82
1/2" HOSE BARB	AQG17008	2.62	1.95	1.15
3/4" HOSE BARB	AQG17012	2.62	2.36	1.56
3/4" SANITARY	AQG33012	2.62	1.66	0.86
1-1/2" SANITARY	AQG33024	2.65	2.86	2.02

• POLYCARBONATE *HT with White Pull Tabs*

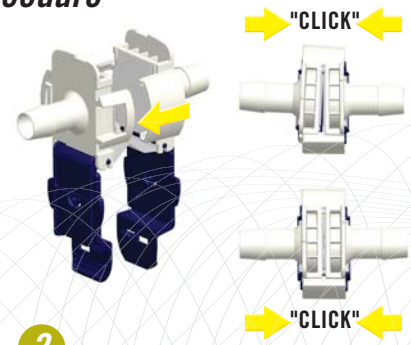
TERMINATION	PART NO.	A	B	C
1/4" HOSE BARB	AQG17004HT	2.62	1.62	0.82
3/8" HOSE BARB	AQG17006HT	2.62	1.62	0.82
1/2" HOSE BARB	AQG17008HT	2.62	1.95	1.15
3/4" HOSE BARB	AQG17012HT	2.62	2.36	1.56
3/4" SANITARY	AQG33012HT	2.62	1.66	0.86
1-1/2" SANITARY	AQG33024HT	2.65	2.86	2.02

Validation reports are available at cpcworldwide.com/bio.

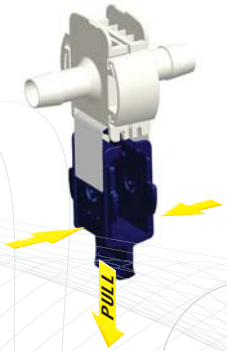
FLIP-CLICK-PULL Assembly Procedure



1 Unsnap and flip down the protective pull tab covers on each connector half.



2 Align the connector halves with the pull tabs hanging down. Slide the two halves together. Independently squeeze each side of the connector until you hear an audible “CPC Click."



3 To complete the connection, simply snap the pull tabs together by pushing on the CPC logos and pull the membranes from the connector.

ASEPTIQUIK® C SERIES CONNECTORS

AseptiQuik® C Connectors provide quick and easy sterile connections, even in non-sterile environments. AseptiQuik's "CLICK-PULL-TWIST" design enables users to transfer media easily with less risk of operator error. The connector's robust design provides reliable performance without the need for clamps, fixtures or tube welders. Biopharmaceutical manufacturers can make sterile connections with the quality and market availability they expect from the leader in single-use connection technology.

Specifications

PRESSURE:
Up to 60 psi, 4.1 bar

TEMPERATURE:
39°F to 104°F (4°C to 40°C)

TYPICAL FLOW RATE:
Cv = 14.4 max

STERILIZATION:
Gamma: Up to 50kGy irradiation

Autoclave High Temp (HT) Version:
Up to 266°F (130°C) for 30 minutes

TERMINATION SIZES:
3/8" (9.5mm) and 1/2" (12.7mm) ID hose barb, and 3/4" sanitary

MATERIALS:
Main Components:
Polycarbonate (white), USP Class VI, ADCF

Lock Ring:
Polycarbonate (blue), USP Class VI, ADCF

Pull Tabs:
Polycarbonate (blue, standard version), USP Class VI, ADCF

Polycarbonate (white, HT version), USP Class VI, ADCF

Caps:
Polypropylene (clear), USP Class VI, ADCF

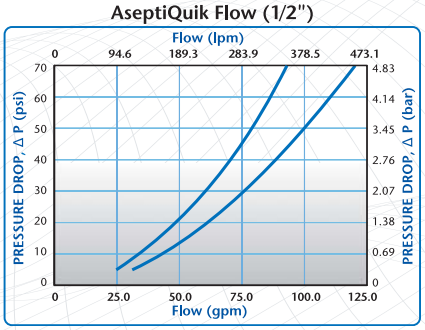
Seals:
Silicone (clear), platinum-cured, USP Class VI, ADCF

Membrane:
Polyethylene (standard version), USP Class VI, ADCF
Hydrophobic polyethersulfone (HT version), USP Class VI, ADCF

FEATURES	BENEFITS
CLICK-PULL-TWIST design	Intuitive three-step connection process reduces risk of operator error
Membrane pull tabs	Ensure simultaneous and secure removal of both membranes
Robust construction	Repeatable and reliable performance with no additional hardware required
Integrated lock ring	Secures final connection preventing disassembly
CPC Click	Audible confirmation of completed assembly steps
Market availability	Open access through multiple supply chain partners

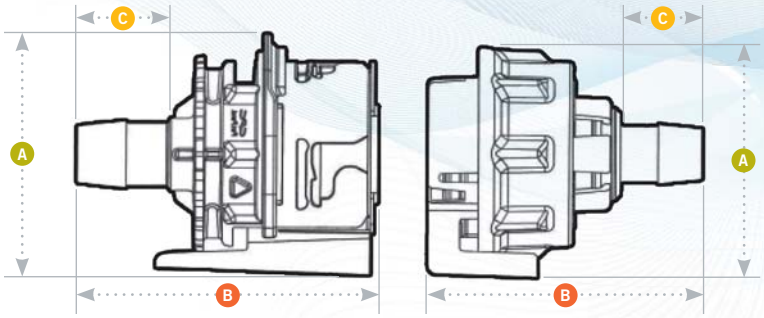
This graph is intended to give you a general idea of the performance capabilities of each product line. The shaded area of the graph represents the operating range of the product family, i.e. upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

AseptiQuik Flow (1/2")



ASEPTIQUIK® C SERIES DIMENSIONS

A = Height/Diameter
B = Total Length
C = Hose Barb Length



Coupling Bodies

• POLYCARBONATE *with Blue Pull Tabs*

TERMINATION	PART NO.	FLOW	A	B	C
3/8" HOSE BARB	AQC17006	.34	2.36 (59.9)	2.74 (69.6)	0.65 (16.5)
1/2" HOSE BARB	AQC17008	.50	2.36 (59.9)	2.95 (74.9)	0.89 (22.6)
3/4" SANITARY	AQC33012	.50	2.36 (59.9)	2.73 (69.3)	0.70 (17.8)

• POLYCARBONATE *HT with White Pull Tabs*

TERMINATION	PART NO.	FLOW	A	B	C
3/8" HOSE BARB	AQC17006HT	.34	2.36 (59.9)	2.74 (69.6)	0.65 (16.5)
1/2" HOSE BARB	AQC17008HT	.50	2.36 (59.9)	2.95 (74.9)	0.89 (22.6)
3/4" SANITARY	AQC33012HT	.50	2.36 (59.9)	2.73 (69.3)	0.70 (17.8)

Coupling Inserts

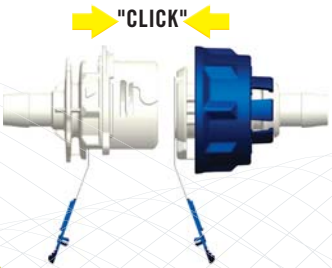
• POLYCARBONATE *with Blue Pull Tabs*

TERMINATION	PART NO.	FLOW	A	B	C
3/8" HOSE BARB	AQC22006	.34	2.50 (63.5)	2.90 (73.7)	0.65 (16.5)
1/2" HOSE BARB	AQC22008	.50	2.50 (63.5)	2.99 (75.9)	0.89 (22.6)
3/4" SANITARY	AQC44012	.50	2.50 (63.5)	2.80 (71.1)	0.70 (17.8)

• POLYCARBONATE *HT with White Pull Tabs*

TERMINATION	PART NO.	FLOW	A	B	C
3/8" HOSE BARB	AQC22006HT	.34	2.50 (63.5)	2.90 (73.7)	0.65 (16.5)
1/2" HOSE BARB	AQC22008HT	.50	2.50 (63.5)	2.99 (75.9)	0.89 (22.6)
3/4" SANITARY	AQC44012HT	.50	2.50 (63.5)	2.80 (71.1)	0.70 (17.8)

CLICK-PULL-TWIST Assembly Procedure



1. Align male and female couplings, push together until "CPC Click" confirmation.

Slight rotation of lock ring may be required for proper alignment prior to connection.

2. Snap membrane pull tabs together and pull from connector.

3. Twist the blue lock ring clock-wise until "CPC Click" and rib to arrow alignment confirms secure final connection.

ASEPTIQUIK® DC SERIES CONNECTORS

AseptiQuik® DC Connectors are the first all-in-one single-use connection technology to offer both a sterile connect and sterile disconnect. With the AseptiQuik DC Connector, manufacturers can make a quick and easy sterile connection and disconnection, even in non-sterile environments.

AseptiQuik DC's intuitive "CLICK-PULL-TWIST" design enables users to transfer media easily with less risk of operator error. After transfer is complete, the connector features a simple one-step disconnection that maintains media sterility by preventing external organisms from entering into the media flow path. The connector's robust design and automatic shutoff valves provide reliable performance without the need for sanitary clamps, fixtures or tube welders.

FEATURES	BENEFITS
CLICK-PULL-TWIST design	Intuitive three-step connection process reduces risk of operator error
Simple one-step disconnection	Maintains media sterility in each half by preventing external organisms from entering the flow path
Membrane pull tabs	Ensure simultaneous and secure removal of both membranes
Robust construction	Repeatable and reliable performance with no additional hardware required
CPC Click	Audible confirmation of completed assembly steps
Market availability	Open access through multiple supply chain partners

Specifications

PRESSURE:
Up to 60 psi, 4.1 bar

TEMPERATURE:
39°F to 104°F (4°C to 40°C)

STERILIZATION:
Gamma: Up to 50kGy irradiation

TERMINATION SIZES:
1/4", 3/8" and 1/2" ID hose barb
(6.4mm, 9.5mm and 12.7mm)

MATERIALS:
Main Components: Polycarbonate (white), USP Class VI, ADCF

Lock Ring: Polycarbonate (blue), USP Class VI, ADCF

Pull Tabs:
Polycarbonate (blue, standard version), USP Class VI, ADCF
Polycarbonate (white, HT version), USP Class VI, ADCF

Caps: Polypropylene (clear), USP Class VI, ADCF

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

Membrane:
Polyethylene (standard version), USP Class VI, ADCF
Hydrophobic polyethersulfone (HT version), USP Class VI, ADCF

Springs: 316L stainless steel

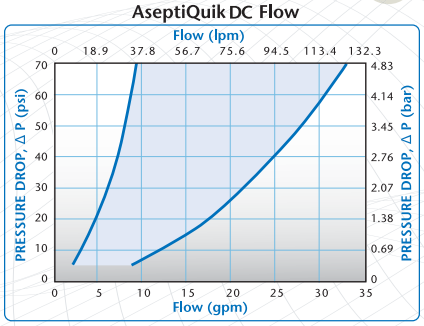
Mates with standard AseptiQuik halves:

AQCDC inserts mate with standard AQC bodies

AQCDC bodies mate wth standard AQC inserts

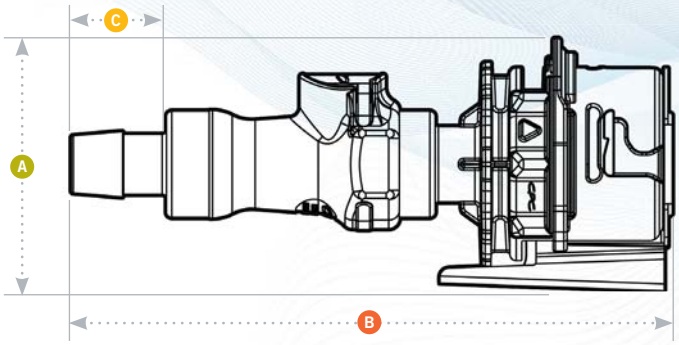
This graph is intended to give you a general idea of the performance capabilities of each product line. The shaded area of the graph represents the operating range of the product family, i.e. upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

AseptiQuik DC Flow



ASEPTIQUIK® DC SERIES DIMENSIONS

A = Height/Diameter
B = Total Length
C = Hose Barb Length



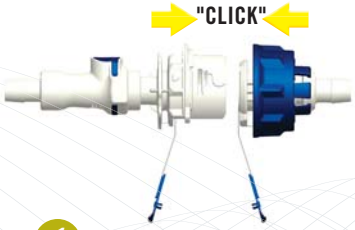
Coupling Bodies • POLYCARBONATE

TERMINATION	PART NO.	FLOW	A	B	C
1/4" HOSE BARB	AQCDC17004	1/4"	2.36 (59.9)	5.33 (135.4)	0.60 (15.2)
3/8" HOSE BARB	AQCDC17006	3/8"	2.36 (59.9)	5.33 (135.4)	0.60 (15.2)
1/2" HOSE BARB	AQCDC17008	3/8"	2.36 (59.9)	5.62 (142.7)	0.89 (22.6)

Coupling Inserts • POLYCARBONATE

TERMINATION	PART NO.	FLOW	A	B	C
1/4" HOSE BARB	AQCDC22004	1/4"	2.50 (63.5)	5.41 (137.4)	0.60 (15.2)
3/8" HOSE BARB	AQCDC22006	3/8"	2.50 (63.5)	5.41 (137.4)	0.60 (15.2)
1/2" HOSE BARB	AQCDC22008	3/8"	2.50 (63.5)	5.70 (144.8)	0.89 (22.6)

CLICK-PULL-TWIST Assembly Procedure



1 Align male and female couplings, push together until audible "CPC Click" confirmation.

Slight rotation of lock ring may be required for proper alignment prior to connection.

2 Snap membrane pull tabs together and pull from connector.

3 Twist the blue lock ring clock-wise until "CPC Click" and rib to arrow alignment confirms secure final connection.

To Disconect

When fluid transfer is finished, press the thumb latch down to complete the sterile disconnection. Both halves will remain sterile.

ASEPTIQUIK® X SERIES CONNECTORS

AseptiQuik® X Large Format 1" Connectors provide quick and easy sterile connections for high flow applications, even in non-sterile environments. AseptiQuik X's "TWIST-PULL-TWIST" design enables users to quickly transfer large volumes of media easily with less risk of operator error. The connector's robust design provides reliable performance without the need for clamps, fixtures or tube welders. Biopharmaceutical manufacturers can now make 1" sterile connections with the quality and market availability they expect from the leader in single-use connection technology.

FEATURES	BENEFITS
TWIST-PULL-TWIST Design	Intuitive three-step connection process reduces risk of operator error
Membrane pull tabs	Ensure simultaneous and secure removal of both membranes
Robust construction	Repeatable and reliable performance with no additional hardware required
Integrated lock ring	Secures final connection preventing disassembly
CPC Click	Audible confirmation of completed assembly steps

Specifications

PRESSURE:
Up to 60 psi, 4.1 bar

TEMPERATURE:
39°F to 104°F (4°C to 40°C)

STERILIZATION:
Gamma: Up to 50kGy irradiation
Autoclave High Temp (HT) Version: Up to 266°F (130°C) for 30 minutes

TERMINATION SIZES:
3/4" and 1" ID hose barb (19.0mm and 25.4mm), 1-1/2" sanitary

MATERIALS:
Main Components:
Polycarbonate (white), USP Class VI, ADCF

Lock Ring:
Polycarbonate (blue), USP Class VI, ADCF

Pull Tabs:
Polycarbonate (blue, standard version), USP Class VI, ADCF

Polycarbonate (white, HT version), USP Class VI, ADCF

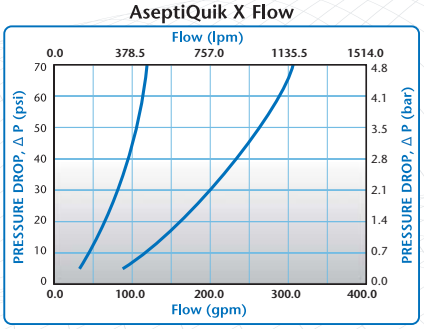
Caps:
Polypropylene (clear), USP Class VI, ADCF

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

Membrane:
Polyethylene (standard version), USP Class VI, ADCF
Hydrophobic polyethersulfone (HT version), USP Class VI, ADCF, PTFE strip sticker

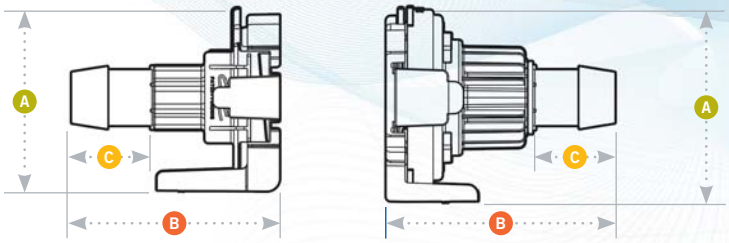
This graph is intended to give you a general idea of the performance capabilities of each product line. The shaded area of the graph represents the operating range of the product family, i.e. upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

AseptiQuik X Flow



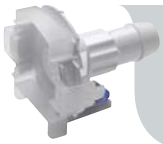
ASEPTIQUIK® X SERIES DIMENSIONS

A = Height/Diameter
B = Total Length
C = Hose Barb Length



Coupling Bodies

• POLYCARBONATE *with Blue Pull Tabs*



TERMINATION	PART NO.	A	B	C
3/4" HOSE BARB	AQX17012	3.54	3.93	1.50
1" HOSE BARB	AQX17016	3.54	4.04	1.53
1-1/2" SANITARY	AQX33024	3.54	4.18	1.73

• POLYCARBONATE *HT with White Pull Tabs*

TERMINATION	PART NO.	A	B	C
3/4" HOSE BARB	AQX17012HT	3.54	3.93	1.50
1" HOSE BARB	AQX17016HT	3.54	4.04	1.53
1-1/2" SANITARY	AQX33024HT	3.54	4.18	1.73

Coupling Inserts

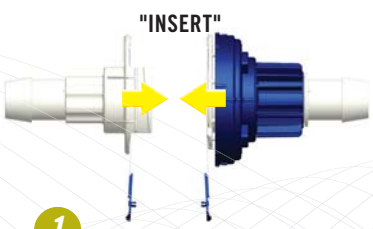
• POLYCARBONATE *with Blue Pull Tabs*

TERMINATION	PART NO.	A	B	C
3/4" HOSE BARB	AQX22012	3.76	4.34	1.50
1" HOSE BARB	AQX22016	3.76	4.45	1.53
1-1/2" SANITARY	AQX44024	3.76	4.58	1.74

• POLYCARBONATE *HT with White Pull Tabs*

TERMINATION	PART NO.	A	B	C
3/4" HOSE BARB	AQX22012HT	3.76	4.34	1.50
1" HOSE BARB	AQX22016HT	3.76	4.45	1.53
1-1/2" SANITARY	AQX44024HT	3.76	4.58	1.74

TWIST-PULL-TWIST Assembly Procedure



1. Align male and female connectors using the START alignment feature of the blue lock ring with the rib indicator of the white body. Insert the two halves together.

2. Twist the blue lock ring clockwise (approximately 75°) until audible "CPC Click" is heard. Alignment of the small blue lock ring rib indicator with the white body's rib indicator confirms final rotation is complete.

3. Snap the membrane pull tabs together and pull from connector.

4. Twist the blue lock ring clockwise until the final audible "CPC Click" is heard (90° from the initial starting point). Alignment of the long blue lock ring rib indicator with the white body's rib indicator confirms initial rotation is complete.

STEAM-THRU® SERIES CONNECTOR

Steam-Thru Connections allow a quick and easy sterile connection between stainless steel biopharmaceutical processing equipment and disposable 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	BENEFITS
Innovative three-port design	Allows a true steam-through SIP process which eliminates "dead legs" and the need for laminar flow hoods
Patented valve design	Allows sterile connection and disconnection and permits high media flow rate
Thumb latch/Tear-away sleeve	Secures valve position, provides visual indicator of process stage
3/4" and 1-1/2" Terminations	Easily connects to process equipment
ADCF-free materials	Meet BSE/TSE requirements

Specifications

PRESSURE:

Steam position:
Up to 30 psi, 2.1 bar (Steam-Thru)
Up to 35 psi, 2.4 bar (Steam-Thru II)

Flow position: Vacuum to 20 psi, 1.4 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: Polysulfone (amber tint), USP Class VI, ADCF

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

Tear-away sleeve: Polyethylene or polycarbonate (Steam-Thru only), USP Class VI

TYPICAL FLOW RATE:

C_v = 4.2 - 4.6 (Steam-Thru)
C_v = 5.2 - 8.0 (Steam-Thru II)

STERILIZATION:

Gamma: Up to 50 kGy irradiation

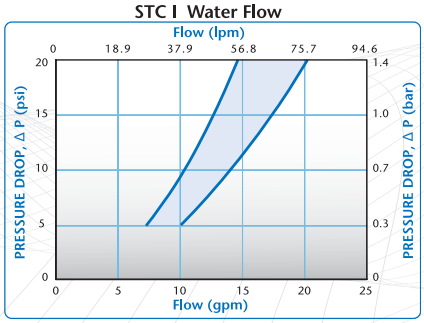
Autoclave: Up to 265°F (129°C) for 60 minutes, up to two cycles (applies only to part numbers STC1700500-STC1700800 and STC2020000-STC2021000)

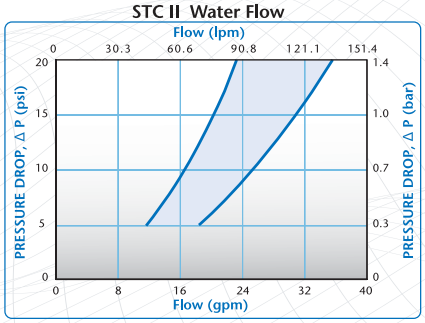
SIP process:
Up to 266°F (130°C) for 60 minutes (Steam-Thru)
Up to 275°F (135°C) for 60 minutes (Steam-Thru II)

TERMINATION SIZES:

3/8" (9.5mm) to 1/2" (12.7mm) ID hose barb (Steam-Thru)
3/8" (9.5mm) to 1/2" (12.7mm) ID hose barb and 3/4" sanitary (Steam-Thru II)

These graphs are 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.

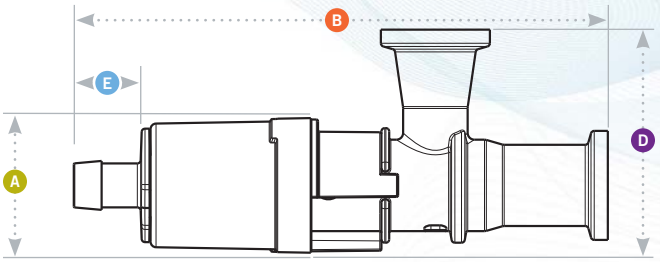




STEAM-THRU SERIES DIMENSIONS

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.



A = Diameter
B = Total Length
C = Actuated Length
D = Height
E = Hose Barb Length

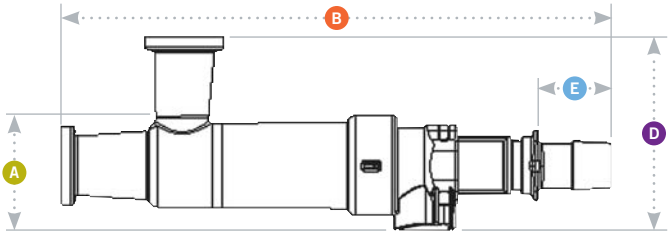
Coupling Bodies • POLYSULFONE

DESCRIPTION	PART NO.	TERMINATIONS	A	B	C	D	E
WITH AUTOCLAVABLE POLYCARBONATE 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	C	D	E
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)

Steam-Thru II Configurations

Steam-Thru II Connections offer the flexibility of "steam on" and "steam off" functionality. The innovative 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.



A = Diameter
B = Total Length
C = Actuated Length
D = Height
E = Hose Barb Length

Coupling Bodies • POLYSULFONE

DESCRIPTION	PART NO.	TERMINATIONS	A	B	C	D	E
WITH POLYCARBONATE SLEEVE	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)
	STC2020900	3/4" x 3/4" sanitary x 3/4" sanitary	1.42 (36.1)	6.60 (167.6)	5.93 (150.6)	2.40 (61.0)	.62 (15.7)
	STC2021000	3/4" x 1-1/2" sanitary x 3/4" sanitary	1.42 (36.1)	6.60 (167.6)	5.93 (150.6)	2.40 (61.0)	.62 (15.7)

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

ASEPTIQUIK® STC SERIES CONNECTOR

AseptiQuik® STC Connectors integrate the AseptiQuik® sterile connector and the Steam-Thru® II SIP connector, giving manufacturers even greater flexibility for hybrid stainless steel and single-use processing. The AseptiQuik STC connector combines either an AseptiQuik G or AseptiQuik C sterile connector with a Steam-Thru II connection that can be mounted directly to a stainless steel vessel via a sanitary termination. AseptiQuik STC connectors utilizing an AseptiQuik G sterile connector offer a genderless design, simplifying system integration at the aseptic connector end. AseptiQuik STC connectors utilizing an AseptiQuik C sterile connector allow system designers to incorporate a keyed female-to-male connection at the aseptic connector end.

The union of the two connectors into a single unit through a sanitary clamp allows an AseptiQuik sterile connection to be steamed on to stainless equipment via SIP. After the SIP cycle, a wide range of single-use systems can be connected. The SIP process can be done in advance allowing a quick and easy sterile connection to the AseptiQuik half without having to wait 30-60 minutes for SIP prior to harvest.

FEATURES	BENEFITS
AseptiQuik design	Innovative three-step connection process reduces risk of operator error
Genderless design	Eases integration of single-use systems with universal mating between AseptiQuik G Connectors
Innovative three-port steam design	Allows a true steam-through SIP process which eliminates "dead legs"
Robust construction	Repeatable and reliable performance with no additional hardware required
Patented steam valve design	Allows sterile connection and disconnection to stainless equipment and permits a high media flow rate.
Sanitary interface between the two connectors	More secure connection than tubing with cable ties
CPC Click	Audible confirmation of assembly steps
Market availability	Open access through multiple supply chain partners

Specifications

PRESSURE:

Steam position: Up to 35 psi, 2.4 bar

Flow position: Up to 20 psi, 1.4 bar

TEMPERATURE:

Steam position:
Up to 275°F (135°C) for 60 minutes

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

STERILIZATION:

Gamma: Up to 50kGy irradiation

AutoClave: High Temp (HT) version:
Up to 266°F (130°C) for 30 minutes (AQSTC)
Up to 266°F (130°C) for 60 minutes (AQGSTC)

***Note**: A slight clockwise rotation of the clamp nut may be needed after autoclave.*

MATERIALS:

Main Components:

AseptiQuik - Polycarbonate (white), USP Class VI, ADCF

Steam-Thru II - Polysulfone (amber tint), USP Class VI, ADCF

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

Pull Tabs:
Polycarbonate (blue, standard version), USP Class VI, ADCF
Polycarbonate (white, HT version), USP Class VI, ADCF

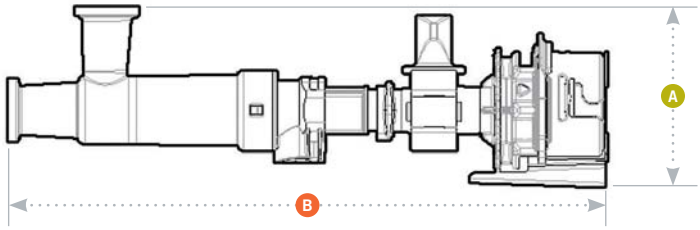
Caps: Polypropylene (clear), USP Class VI, ADCF

Membrane:
Polyethylene (standard version), USP Class VI, ADCF
Hydrophobic polyethersulfone (HT versions), USP Class VI, ADCF, PTFE strip sticker

Clamp: Nylon 66 (white), USP Class VI

Note: Mates with gendered and genderless AseptiQuik connectors.

ASEPTIQUIK® STC SERIES DIMENSIONS



A = Height/Diameter
B = Total Length
C = Actuated Length

Mates with gendered male and female AseptiQuik Series.

Coupling Bodies

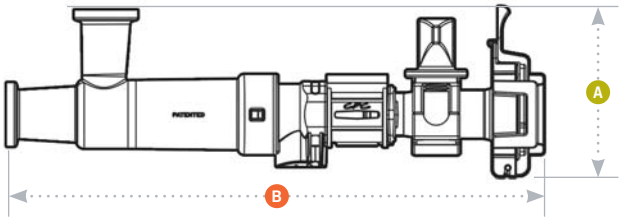
- **POLYCARBONATE** *with Blue Pull Tabs*

TERMINATION	PART NO.	A	B	C
3/4" X 3/4" SANITARY STEAM-THRU II WITH ASEPTIQUIK BODY	AQSTC2330900	2.78 (70.6 mm)	9.25 (235 mm)	8.42 (213.9 mm)
3/4" X 1-1/2" SANITARY STEAM-THRU II WITH ASEPTIQUIK BODY (PICTURED)	AQSTC2331000	2.78 (70.6 mm)	9.25 (235 mm)	8.42 (213.9 mm)

- **POLYCARBONATE** *HT with White Pull Tabs*

TERMINATION	PART NO.	A	B	C
3/4" X 3/4" SANITARY STEAM-THRU II WITH ASEPTIQUIK BODY (PICTURED)	AQSTC2330900HT	2.78 (70.6 mm)	9.25 (235 mm)	8.42 (213.9 mm)
3/4" X 1-1/2" SANITARY STEAM-THRU II WITH ASEPTIQUIK BODY	AQSTC2331000HT	2.78 (70.6 mm)	9.25 (235 mm)	8.42 (213.9 mm)

ASEPTIQUIK® G STC SERIES DIMENSIONS



A = Height/Diameter
B = Total Length
C = Actuated Length

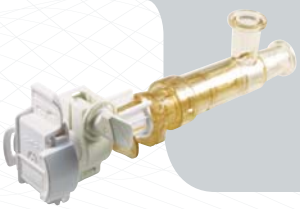
Mates with genderless AseptiQuik G Series.

Coupling Bodies

- **POLYCARBONATE** *with Blue Pull Tabs*

TERMINATION	PART NO.	A	B	C
3/4" X 3/4" SANITARY STEAM-THRU II WITH GENDERLESS ASEPTIQUIK G BODY	AQGSTC2330900	3.05	8.26	7.36
3/4" X 1-1/2" SANITARY STEAM-THRU II WITH GENDERLESS ASEPTIQUIK G BODY	AQGSTC2331000	3.05	8.26	7.36

- **POLYCARBONATE** *HT with White Pull Tabs*

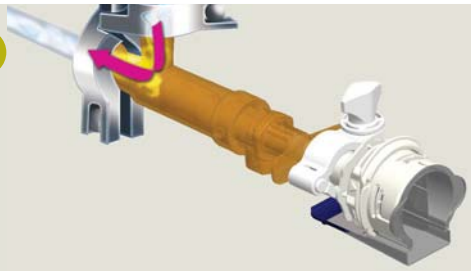


TERMINATION	PART NO.	A	B	C
3/4" X 3/4" SANITARY STEAM-THRU II WITH GENDERLESS ASEPTIQUIK G BODY	AQGSTC2330900HT	3.05	8.26	7.36
3/4" X 1-1/2" SANITARY STEAM-THRU II WITH GENDERLESS ASEPTIQUIK G BODY	AQGSTC2331000HT	3.05	8.26	7.36

ASEPTIQUIK® STC SERIES ASSEMBLY PROCEDURE

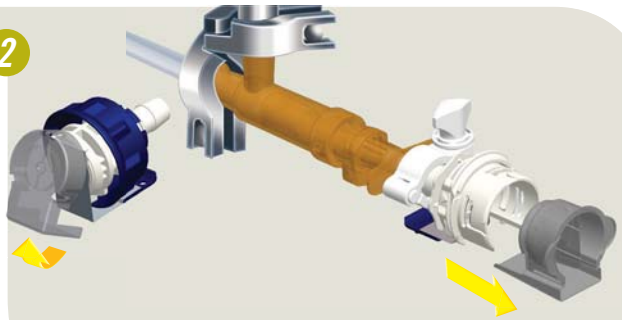
CLICK-PULL-TWIST Assembly Procedure

1



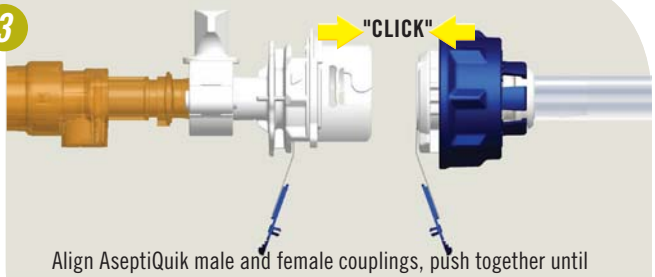
Steam flows from the process equipment through the Steam-Thru II in a steam trap creating a “steam on" sterile connection.

2



Remove the protective dust cap from the AseptiQuik STC and AseptiQuik Insert.

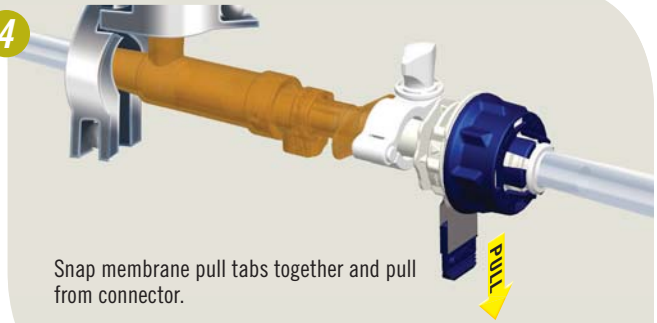
3



Align AseptiQuik male and female couplings, push together until **“CPC Click"** confirmation.

Slight rotation of blue lock ring may be required for proper alignment rior to connection.

4

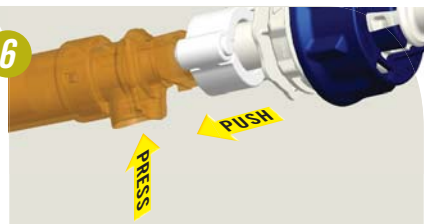


Snap membrane pull tabs together and pull from connector.

5

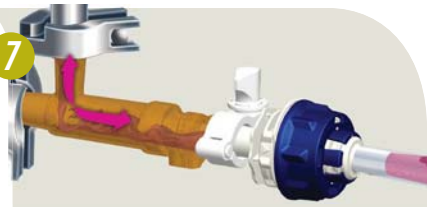
Twist the blue lock ring clockwise until audible **“CPC Click."** Alignment of the lock ring rib with the body’s arrow indicator confirms final connection.

6



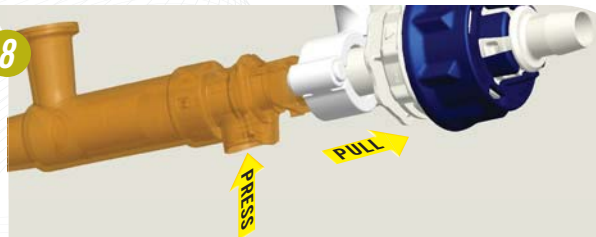
Once the AseptiQuik assembly is complete and the steam trap has been closed, simply press the thumb latch to allow the valve to be pushed into the flow position. The **“CPC Click"** confirms the transition is complete.

7



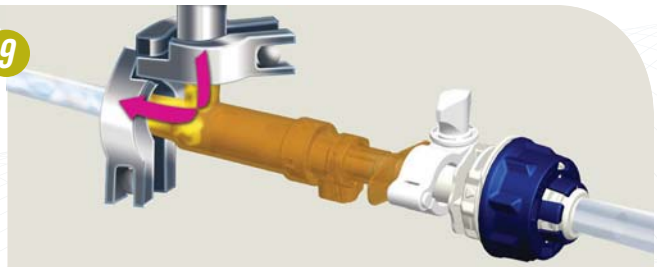
Once the valve is locked into the flow position, you are ready for sterile fluid transfer to or from the process equipment.

8



After sterile media transfer is complete, simply press the thumb latch and pull the valve back into the steam position. The **“CPC Click"** confirms the transition is complete.

9

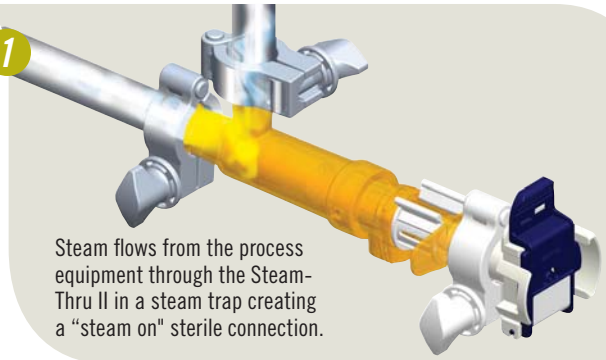


With the valve locked securely into the steam position, complete a second SIP cycle to “steam off" the connection.

ASEPTIQUIK® G STC SERIES ASSEMBLY PROCEDURE

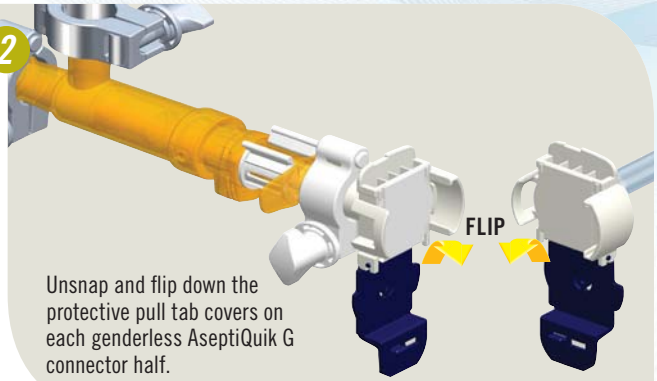
FLIP-CLICK-PULL Assembly Procedure

1



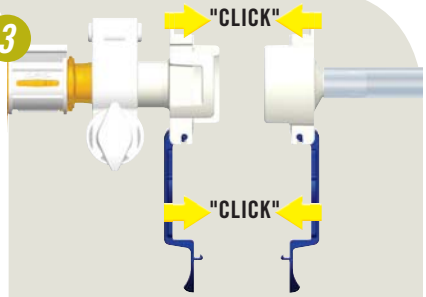
Steam flows from the process equipment through the Steam-Thru II in a steam trap creating a “steam on" sterile connection.

2



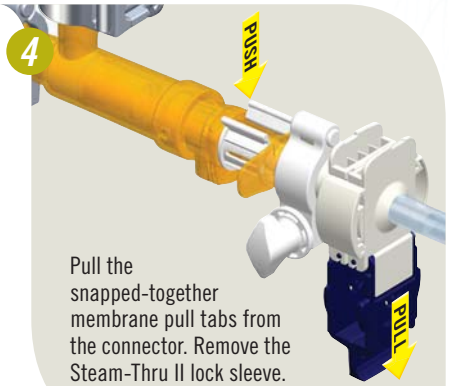
Unsnap and flip down the protective pull tab covers on each genderless AseptiQuik G connector half.

3



Align genderless AseptiQuik G couplings, push together until **“CPC Click"** confirmation.

4

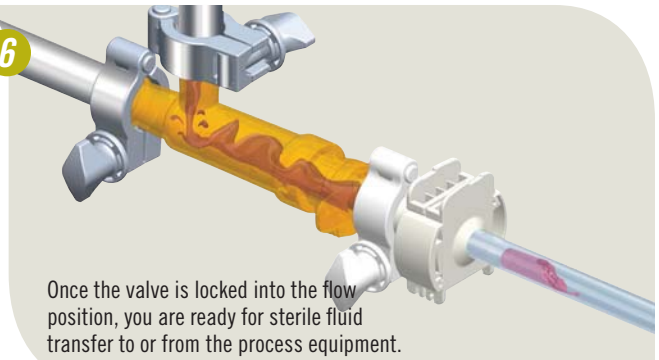


Pull the snapped-together membrane pull tabs from the connector. Remove the Steam-Thru II lock sleeve.

5

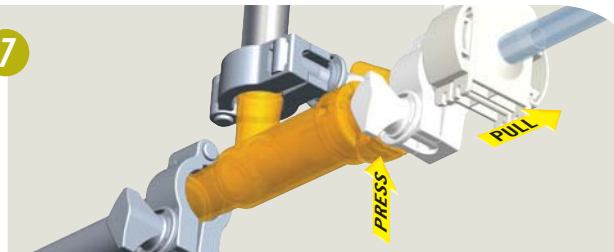
Once the genderless AseptiQuik G assembly is complete and the steam trap has been closed, simply press the thumb latch to allow the valve to be pushed into the flow position. The **“CPC Click" confirms the transition** is complete.

6



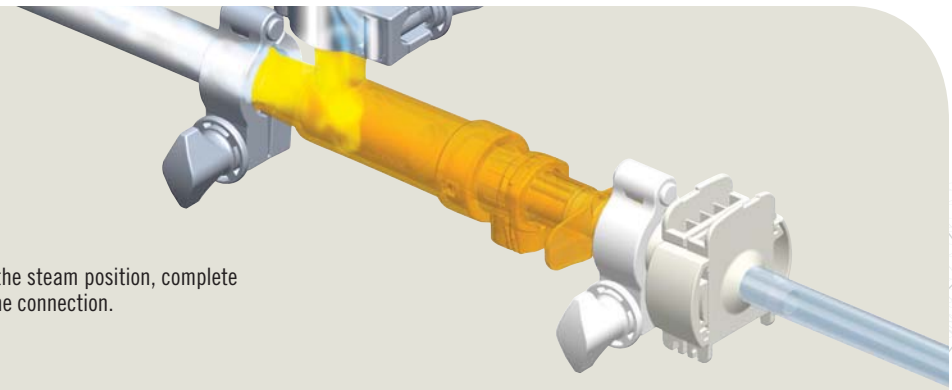
Once the valve is locked into the flow position, you are ready for sterile fluid transfer to or from the process equipment.

7



After sterile media transfer is complete, simply press the thumb latch and pull the valve back into the steam position. The **“CPC Click"** confirms the transition is complete.

8



With the valve locked securely into the steam position, complete a second SIP cycle to “steam off" the connection.

REGULATORY AND COMPLIANCE

ISO 13485:2016 Certification

ISO 13485:2016 is recognized by regulators around the world as a good basis for addressing medical device design and manufacturing regulatory requirements. It allows us to enhance product safety by proactively identifying and managing product and project risks. Becoming ISO 13485:2016 certified has allowed us to better control the consistency of manufactured products.

ISO 9001:2015 Certification

ISO 9001:2015 is a standard which assures consistency of a product ordered by customers. Organizations having ISO 9001:2015 certification have demonstrated compliance to the ISO 9001:2015 requirements by an independent registration authority. CPC's Quality Management System has been approved and certified under the ISO 9001:2015 standard.

Cleanroom Manufacturing

CPC manufactures certain Life Sciences and Chemical Management product lines in a cleanroom certified by an external testing service to meet or exceed ISO Class 7 (10,000) at 0.5 mm per ISO 14644 and the former Federal Standard 209E. Certification data is available upon request.

Animal Derived Component Free (ADCF)

According to declarations from CPC's raw material suppliers, the materials used to manufacture the flow path components of the biopharmaceutical product lines do not contain substances of animal origin.

FDA and USDA

The U.S. Food and Drug Administration publishes, through the Code of Federal Regulations, standardized criteria which govern the acceptability of materials used in food contact. The U.S. Department of Agriculture publishes similar standards that mirror FDA criteria. Neither agency approves or disapproves products for particular applications. Most of CPC's products are made using resins that comply with applicable FDA or USDA standards. When necessary, the standard o-ring seals are replaced with specific, recognized materials.

REACH

REACH is the Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals. It entered into force on 1st June 2007 to streamline and improve the former legislative framework on chemicals of the European Union (EU). REACH places greater responsibility on industry to manage the risks that chemicals may pose to the health and the environment. CPC publishes a list of CPC products that are compliant with the EU regulation 1907/2006.

Regulation of Hazardous Substances

The RoHS Directive stands for "the restriction of the use of certain hazardous substances in electrical and electronic equipment." This Directive bans the placing on the EU market of new electrical and electronic equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants.

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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 CPC 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.

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