

# STEAM-THRU® SERIES CONNECTORS

**Steam-Thru® Connectors** 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.

## SPECIFICATIONS OPERATING CONDITIONS

(Fluid Transfer)

### STEAM POSITION

**Temperature:**

39°F to 104°F (4°C to 40°C)

**Pressure:**

Up to 30 psi, 2.1 bar (Steam-Thru)

Up to 35 psi, 2.4 bar (Steam-Thru II)

### FLOW POSITION

**Temperature:** 39°F to 104°F (4°C to 40°C)

**Pressure:** Vacuum to 20 psi, 1.4 bar

### STERILIZATION

Full Connector Assembly

**Gamma:** Up to 50 kGy irradiation

**Autoclave:** Up to 265°F (129°C)  
for 60 minutes

**Steam-In-Place (SIP):**

Up to 266°F/130°C (up to ~24psi),  
60 minutes (Steam-Thru)

Up to 275°F/135°C (up to ~31psi),  
60 minutes (Steam-Thru II)

### TERMINATIONS

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)

### MATERIALS

**Connection:** Polysulfone (amber tint)

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

**Removeable Sleeve:** Polycarbonate

NOTE: Steam pressures are estimated based upon information in Steam Tables found in literature



### FEATURES

Innovative three-port design →

Valve design →

Steam-Thru II thumb latch →

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

### 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

Secures valve position, provides visual indicator of process stage

Easily connects to process equipment

## TYPICAL FLOW RATE

**Cv Value Range:**

4.0 - 7.0 for Steam-Thru

3.0 - 9.0 for Steam-Thru II

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

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## NOTE

Validation and Extractables data can be requested at [cpcworldwide.com/STC](http://cpcworldwide.com/STC)

## DID YOU KNOW

Steam-Thru connectors are perfect for any hybrid processing at your facility. If using a stainless-steel bioreactor and single-use systems, easily make a sterile connection between the two systems with a Steam-Thru connector on your single-use system and mounting it directly onto your bioreactor.



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# STEAM-THRU SERIES DIMENSIONS

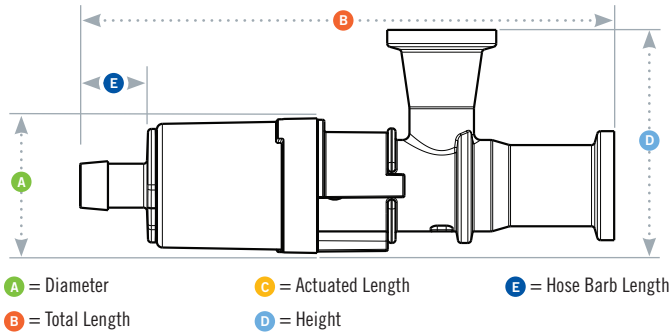
POLYSULFONE with polycarbonate sleeve



TERMINATION	PART NO.	A	B	C	D	E
3/4" X 3/4" SANITARY X 1/2" HB	STC1700000	1.20" (30.5 mm)	5.09" (129.3 mm)	4.44" (112.8 mm)	2.00" (50.8 mm)	0.89" (22.6 mm)
3/4" X 3/4" SANITARY X 3/8" HB	STC1700100	1.20" (30.5 mm)	4.80" (121.9 mm)	4.15" (105.4 mm)	2.00" (50.8 mm)	0.60" (15.2 mm)
3/4" X 1-1/2" SANITARY X 1/2" HB	STC1700200	1.20" (30.5 mm)	5.09" (129.3 mm)	4.44" (112.8 mm)	2.00" (50.8 mm)	0.89" (22.6 mm)
3/4" X 1-1/2" SANITARY X 3/8" HB	STC1700300	1.20" (30.5 mm)	4.80" (121.9 mm)	4.15" (105.4 mm)	2.00" (50.8 mm)	0.60" (15.2 mm)

## STEAM-THRU CONFIGURATIONS

Steam-Thru Connection's 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.



# STEAM-THRU II SERIES DIMENSIONS

POLYSULFONE with polycarbonate sleeve

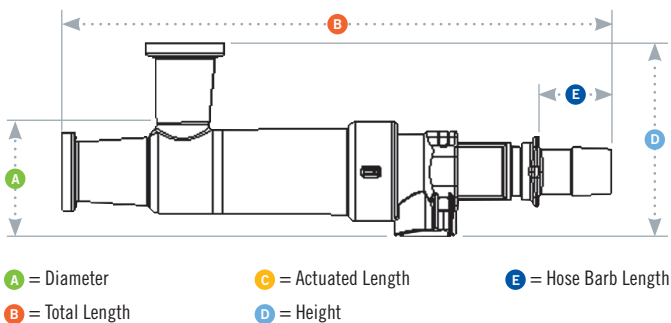


TERMINATION	PART NO.	A	B	C	D	E
3/4" X 3/4" SANITARY X 1/2" HB	STC2020000	1.42" (36.1 mm)	6.84" (173.7 mm)	5.93" (150.6 mm)	2.40" (61.0 mm)	0.88" (22.4 mm)
3/4" X 3/4" SANITARY X 3/8" HB	STC2020100	1.42" (36.1 mm)	6.76" (171.7 mm)	5.93" (150.6 mm)	2.40" (61.0 mm)	0.80" (20.3 mm)
3/4" X 1-1/2" SANITARY X 1/2" HB	STC2020200	1.42" (36.1 mm)	6.84" (173.7 mm)	5.93" (150.6 mm)	2.40" (61.0 mm)	0.88" (22.4 mm)
3/4" X 1-1/2" SANITARY X 3/8" HB	STC2020300	1.42" (36.1 mm)	6.76" (171.7 mm)	5.93" (150.6 mm)	2.40" (61.0 mm)	0.80" (20.3 mm)
3/4" X 3/4" SANITARY X 3/4" SANITARY	STC2020900	1.42" (36.1 mm)	6.60" (167.6 mm)	5.93" (150.6 mm)	2.40" (61.0 mm)	0.62" (15.7 mm)
3/4" X 1-1/2" SANITARY X 3/4" SANITARY	STC2021000	1.42" (36.1 mm)	6.60" (167.6 mm)	5.93" (150.6 mm)	2.40" (61.0 mm)	0.62" (15.7 mm)

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

## 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.



WARRANTY: All sales are subject to Colder Products Company's limited express warranty set forth in the CPC catalog. Contact your local distributor or CPC Customer Service for warranty provisions.

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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