

Configurable Transfer Line

Fluid Management
Technologies

Applications

The transfer lines allow connections and fluid transfer during all the different steps of the biopharmaceutical process:

- Media and buffer preparation
- Cell culture
- Harvest
- Purification
- Final formulation, final filtration and filling



Description

The transfer line allows connections and fluid transfer from one process component to another process component in bio-pharmaceutical manufacturing operations.

The transfer line is composed by one inlet connector, one outlet connector and tubing.

Flexibility

Configurable transfer lines are configured from pre-qualified components and proven functionalities among a large offer of tubing and connectors for a streamlined incorporation into your process.

Multiple configurations are available with thermoweldable TPE tubing, compatible with Biowelder® and Biosealer® for aseptic connection | disconnection, silicone TuFlux® tubing compatible with Clipster® Aseptic Disconnecter and qualified for peristaltic pumping. Quick couplers, tri-clamps, Steam thru™ valves and sterile-to-sterile connectors are provided for optimal connection compatibility flexibility in a production environment.

Security of Supply

Sartorius expertise in designing Single Use solutions combined with collaborative supplier management and customer demand planning assures a state of the art product supported by a robust supply chain that can cope with strong market growth.

Quality Assurance

Sartorius Stedim Biotech Quality Systems for single-use products follow applicable ISO and FDA regulations. Design, Manufacture and Sterilization processes are conducted under conditions that mirror biopharmaceutical operations and meet cGMP requirements.

Supply Chain

Configurable transfer lines are available as Configured to Order products. pre-configured products based on application knowledge allow savings on engineering time and production preparation, thus providing reduced lead-times compared to classical fully customized processes.

Features & Benefits

Features	Benefits
Pre-qualified component database and proven functionalities	Quality by design for improved product reliability
Standard components & manufacturing Methods	Save on development and engineering costs
Instant design with a web-based Product Configurator	Shorten lead time for drawing & quotes
CTO dedicated supply chain and manufacturing planning	Shorten lead-time for products
Offer a large range of standardized configurable products	Reduce complexity and risks by Standardization
Product Configurator tool with preconfigured options & functionalities	Flexibility for optimal design tailored to the application needs
Most commonly used components and solutions in the market	Compatibility with end user process requirements

Configurable Transfer Line

Tubing	Silicone TuFlux® or Silicone (Pt) compatible with Clipster® Aseptic Disconnecter TuFlux® TPE or C-Flex® 374 compatible with Biowelder and Biosealer®
Connectors	Quick Couplers Triclamp and Mini-Triclamp Steam Thru™ valves SIP connections Sterile-to-sterile connections, including Opta® SFT
Sterilization	By Gamma Irradiation

Transfer Sets for Pumping Applications

Tubing Material

Silicone tubings (TuFlux®SIL and Si(Pt)) are recommended for 10 hr maximum operation with a peristaltic pump.

Si (Pt) (inch)	Length (mm)	Inlet connector	Outlet connector
¼ × ⅞	500 (20")	Opta® SFT Male or Female	Opta® SFT Male or Female
	1,000 (39")	KPC HT Male or Female	KPC HT Male or Female
	1,500 (59")	Lynx® ST	Lynx® ST
		Triclamp 1½ w or w o plug Triclamp ¾ w or w o plug MPC Male or Female Plug	Triclamp 1½ w or w o plug Triclamp ¾ w or w o plug MPC Male or Female Plug
⅜ × ⅝	1,500 (59")	Opta® SFT Male or Female	Opta® SFT Male or Female
	3,000 (118")	KPC HT Male or Female	KPC HT Male or Female
	5,000 (197")	Lynx® S2S Male or Female	Lynx® S2S Male or Female
		STC 1½ × ¾"	STC 1½ × ¾"
		STC ¾" × ¾"	STC ¾" × ¾"
		Lynx® ST Triclamp 1½ w or w o plug Triclamp ¾ w or w o plug MPC Male or Female Plug	Lynx® ST Triclamp 1½ w or w o plug Triclamp ¾ w or w o plug MPC Male or Female Plug
1 × ¾	1,500 (59")	Opta® SFT Male or Female	Opta® SFT Male or Female
	3,000 (118")	KPC HT Male or Female	KPC HT Male or Female
	5,000 (197")	STC 1½ × ¾"	STC 1½ × ¾"
		STC ¾" × ¾"	STC ¾" × ¾"
	Triclamp 1½ w or w o plug Triclamp ¾ w or w o plug MPX Male or Female Plug	Triclamp 1½ w or w o plug Triclamp ¾ w or w o plug MPX Male or Female Plug	
¾ × 1⅝	1,500 (59")	Triclamp 1½ w or w o plug	Triclamp 1½ w or w o plug
	3,000 (118")	Triclamp ¾ w or w o plug	Triclamp ¾ w or w o plug
	5,000 (197")	MPU Male or Female	MPU Male or Female
	10,000 (394")		
1 × 1⅜ (Only for Si(Pt))	1,500 (59") 3,000 (118") 5,000 (197") 10,000 (394")	Triclamp 1½ w or w o plug	Triclamp 1½ w or w o plug

Transfer line configuration

Tubing Material

Specifically formulated platinum-cured silicone tubing for peristaltic pump applications, providing up to six times the pump life of standard platinum-cured silicone tubing.

Si(Pt) APT (inch)	Length (mm)	Inlet connector	Outlet connector
½ × ⅞	1,500 (59")	Opta® SFT Male or Female	Opta® SFT Male or Female
	3,000 (118")	KPC HT Male or Female	KPC HT Male or Female
	5,000 (197")	STC 1½ × ¾"	STC 1½ × ¾"
		STC ¾" × ¾"	STC ¾" × ¾"
		Triclamp 1½ w or w o plug MPX Male or Female Plug	Triclamp 1½ w or w o plug MPX Male or Female Plug
¾ × 1⅝	1,500 (59")	MPU Male or Female	MPU Male or Female
	3,000 (118")		
	5,000 (197")		

Specifications

Transfer line for pumping application (<10h pumping time)

Tubing Material

Platinum cured:

- TuFlux®SIL
- Si(Pt)

Flow Rate

The given flow-rates are based on a fluid transfer performed with a peristaltic pump. Flow rate varies with discharge pressure, suction and product viscosity.

Silicone (Pt) Tubing (inch)	Maximum Flow Rate
¼ × ⅞	90 L/h
⅜ × ⅝	420 L/h
½ × ¾	780 L/h
¾ × 1⅝	1,500 L/h
1 × 1⅜	2,000 L/h

Specifications

Transfer line for long time pumping application (>10h pumping time)

Tubing Material

Silicone APT

Flow Rate

The given flow-rates are based on a fluid transfer performed with a peristaltic pump. Flow rate varies with discharge pressure, suction and product viscosity.

Silicone (Pt) Tubing (inch)	Maximum Flow Rate
½ × ⅞	780 L/h
1 × 1⅜	1,500 L/h

Transfer Line for Sealing and Welding Applications

Tubing Material

TPE (Thermoplastic elastomer) for tube sealing and welding operations.
TuFlux® TPE and C-Flex® 374

TPE (inch)	Length (mm)	Inlet connector	Outlet connector
¼ × 7/16	500 (20")	Opta® SFT Male or Female	Opta® SFT Male or Female
	1,000 (39")	KPC HT Male or Female	KPC HT Male or Female
	1,500 (59")	Lynx® ST	Lynx® ST
		Triclamp 1½ w or w o plug	Triclamp 1½ w or w o plug
		Triclamp ¾ w or w o plug MPC Male or Female Plug	Triclamp ¾ w or w o plug MPC Male or Female Plug
¾ × 5/8	1,500 (59")	Opta® SFT Male or Female	Opta® SFT Male or Female
	3,000 (118")	KPC HT Male or Female	KPC HT Male or Female
	5,000 (197")	STC 1½ × ¾"	STC 1½ × ¾"
		STC ¾" × ¾"	STC ¾" × ¾"
		Triclamp 1½ w or w o plug Triclamp ¾ w or w o plug MPC Male or Female Plug	Triclamp 1½ w or w o plug Triclamp ¾ w or w o plug MPC Male or Female Plug
½ × ¾	1,500 (59")	Opta® SFT Male or Female	Opta® SFT Male or Female
	3,000 (118")	KPC HT Male or Female	KPC HT Male or Female
	5,000 (197")	STC 1½ × ¾"	STC 1½ × ¾"
		STC ¾" × ¾"	STC ¾" × ¾"
		Triclamp 1 w or w o plug Triclamp ¾ w or w o plug MPX Male or Female Plug	Triclamp 1 w or w o plug Triclamp ¾ w or w o plug MPX Male or Female Plug
¾ × 1½	1,500 (59")	Triclamp 1½ w or w o plug	Triclamp 1½ w or w o plug
	3,000 (118")	Triclamp ¾ w or w o plug	Triclamp ¾ w or w o plug
	5,000 (197")	MPU Male or Female	MPU Male or Female
	10,000 (394")		
1 × 1¾	1,500 (59")	Triclamp 1½ w or w o plug	Triclamp 1½ w or w o plug
	3,000 (118")		

Sales and Service Contacts

For further contacts, visit
www.sartorius.com

Germany

Sartorius Stedim
Biotech GmbH
August-Spindler-Strasse 11
37079 Goettingen
Phone +49 551 308 0

USA

Sartorius Stedim
North America Inc.
565 Johnson Avenue
Bohemia, NY 11716
Toll-free +1 800 368 7178