

Lynx® S2S Connector

Secure connections between sterilized fluid paths

The uniquely designed Lynx® S2S (sterile to sterile) connector is a single-use, single-actuation, gamma and autoclave compatible disposable device for connecting sterilized fluid paths in biopharmaceutical processes.

The Lynx® S2S connector is constructed of a female coupling and a male coupling. Once these two components are assembled together, the sterile fluid path is enabled. Once assembled, the two components cannot be disassembled, reducing the risk of sterility breach.



Quick and Easy Connectivity

A series of simple steps connects the two independently sealed fluid paths by joining the female coupling and male coupling. Subsequently, by way of a slide, the sealing plugs are moved out of the way. At this point, the female coupling and male coupling are connected and the two fluid paths are aligned, creating one continuous path that has not been exposed to outside contamination. This path is sterile when the female coupling and male coupling are assembled as part of a sealed assembly that has been properly sterilized by either gamma irradiation or autoclave.

Safe, Disposable Connectors

The Lynx® S2S connector is disposable and intended for single use. With the Lynx® S2S connector, there are no parts to clean in place, and the risk of contamination is reduced.

Benefits

- Secure connectology eliminates the risk of contamination
- Robust design delivers consistent, reliable performance
- Configured for ease of scale up
- Easy to validate sterile connections

Sterility Assurance During Actuation

The Lynx® S2S connector is 100% air-integrity tested in manufacturing. Connector sets were tested utilizing an aerosolized bacterial challenge method with greater than 10⁶ Colony Forming Units (cfu) of *B. diminuta* and direct bacterial soiling method with greater than 10⁶ cfu of *B. diminuta*, assuring a sterile connection can be made in non-classified areas.

No Special Capital Equipment Required

Once gamma-irradiated or autoclaved, the Lynx® S2S couplings can be connected in either a classified or non-classified environment. The unique design of the S2S connector does not require a specialized clean room or equipment to ensure a sterile connection.

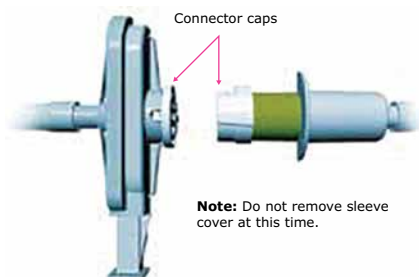
A Range of Configurations

The Lynx® S2S connector facilitates connections between sterilized filters, tubing assemblies and process containers utilizing tubing diameters of ¼ in. (6.4 mm), ⅜ in. (9.5 mm) and ½ in. (12.7 mm). It can be used in numerous upstream and downstream processes, for final fill and finish operations in classified or non-classified environment

Actuating the Lynx® S2S Connector Set

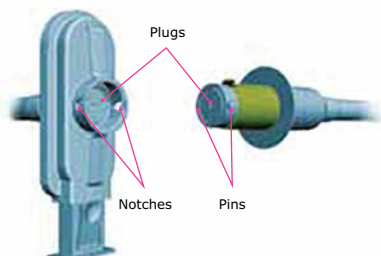
Step 1.

Remove connector caps.



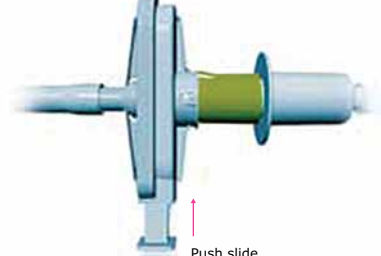
Step 2.

Align notches with pins and insert male coupling until you hear a click.



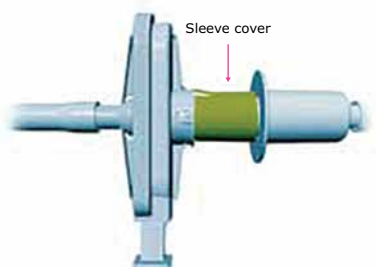
Step 3.

Press thumb tab in and push slide until it stops.



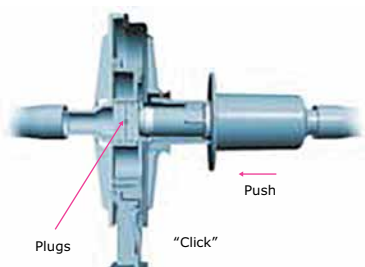
Step 4.

Remove sleeve cover.



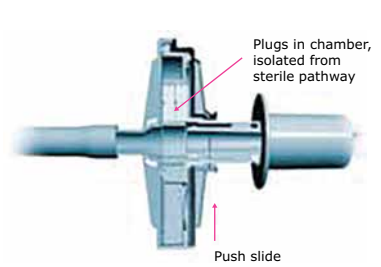
Step 5.

Push male coupling farther, until you hear a click.



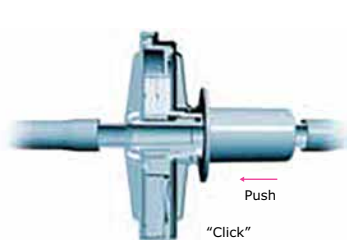
Step 6.

Push slide completely in.



Step 7.

Push male coupling all the way into female coupling, until you hear a final click.



The Lynx® connector is ready for sterile fluid flow.



Couplings

Female Coupling



Fully actuated Lynx® S2S connector



Applications

Ideally suited for a broad range of applications including sterile liquid transfer and microbiological sampling, the Lynx® S2S connector provides the optimum solution for making secure, safe connections between two sterilized single-use disposable assemblies.

Sterile Liquid Transfer

The Lynx® S2S connector can be integrated with assemblies that include single-use capsules, tubing, and flexible containers. Pre-sterilized by gamma irradiation or autoclave, these assemblies are ideal for a wide range of liquid transfer applications and are easily integrated into both the bulk production and final fill processes, ensuring the secure transfer of your valuable product.

Microbiological Sampling

Replace your current rubber septum or valve and bottle sampling techniques with a pre-sterilized single-use sampling system. A number of flexible sampling containers can be linked to each other via a Lynx® S2S connector, and the entire assembly can be sterilized by gamma irradiation or autoclave. This sterile connection to the sample point minimizes the risk of false positives.

For instance, bioreactor sampling at multiple sites requires a large investment in capital equipment, is labor intensive and open to the risk of contamination. By utilizing the Lynx® S2S connector for bioreactor sampling at multiple sites, the process is now secured, aseptic connections are eliminated and capital equipment costs and overhead labor are significantly reduced.

Single-Use Assemblies

As part of the Mobius® flexible bioprocessing solution set, Lynx® S2S connectors are important components in ready-to-use, single-use assemblies, and deliver safe and robust connections for various unit operations within the biopharmaceutical industry.

When provided as part of sterilized disposable assemblies, the Lynx® S2S connector is attached to an assembly of filters, process containers, and/or tubing as required by the specific application.



The Lynx® S2S connector can connect to tubing assemblies of 1/4, 3/8 and 1/2 in. diameters.

Specifications

Typical Flow Rate		¼ in.: 2.59 gpm at 20 psid (9.5 L/min at 1.38 bar) at 25°C (bi-directional)
		⅜ in.: 7.29 gpm at 20 psid (27.3 L/min at 1.38 bar) at 25°C (bi-directional)
		½ in.: 19 gpm at 20 psid (71.9 L/min at 1.38 bar) at 25°C (bi-directional)
Maximum Differential Pressure (Actuated)		60 psig (4.1 bar) at 25°C (bi-directional)
Sterilization Compatibility		Gamma up to 45 kGy and autoclave once for 30 minutes at 130°C. Do not steam in place.
Operating Temperature		4 to 40°C
Fittings	Inlet/Outlet Couplings	¼ in. (6.4 mm) hose barb; 0.19 in. (4.8 mm) ID
		⅜ in. (9.5 mm) hose barb; 0.25 in. (7.1 mm) ID
		½ in. (12.7 mm) hose barb; 0.43 in. (10.9 mm) ID
Materials of Construction	Lynx® Connector	Polysulfone, USP Class VI, 21 CFR, animal origin free
	Gasket	Silicone, USP Class VI, 21 CFR, animal origin free
Dimensions	Female Coupling	145.5 mm x 47 mm x 69.9 mm (5.72 in. x 1.85 in. x 2.73 in.)
	Male Coupling	122 mm x 50 mm (4.7 in. x 2 in.)
Toxicity	Classification of Plastics	Meets USP Class VI Biological Test for Plastics In-vivo <88> (wetted surfaces only) pre- and post-gamma
	Endotoxin	(LAL) pre- and post-gamma irradiation: ≤ 0.25 EU/mL per USP<85>
Particle Releasing		All manufacturing lots are release tested per the guidelines of USP <788> to ensure particulates > 10 µm are < 25/mL and particulates > 25 µm are < 3/mL.
Non-Fiber Releasing		This product meets the criteria for a “non-fiber releasing” product as defined in 21 CFR 210.3 (b)(6).
Indirect Food Additive		All wetted component materials meet the FDA Indirect Food Additive requirements cited in 21 CFR 177-182.

Ordering Information

Description	Size (in.)	Qty/Pk	Cat. No.
Lynx® S2S Connector Set, non-sterile	¼	1 Female, 1 Male	SSCS HB1A 01
	⅜	1 Female, 1 Male	SSCS HB3A 01
	½	1 Female, 1 Male	SSCS HB2A 01
Lynx® S2S Female Couplings, non-sterile	¼	24	SSCF HB1A 24
	⅜	24	SSCF HB3A 24
	½	24	SSCF HB2A 24
Lynx® S2S Male Couplings, non-sterile	¼	24	SSCM HB1A 24
	⅜	24	SSCM HB3A 24
	½	24	SSCM HB2A 24

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Merck KGaA
 Frankfurter Strasse 250
 64293 Darmstadt
 Germany

