

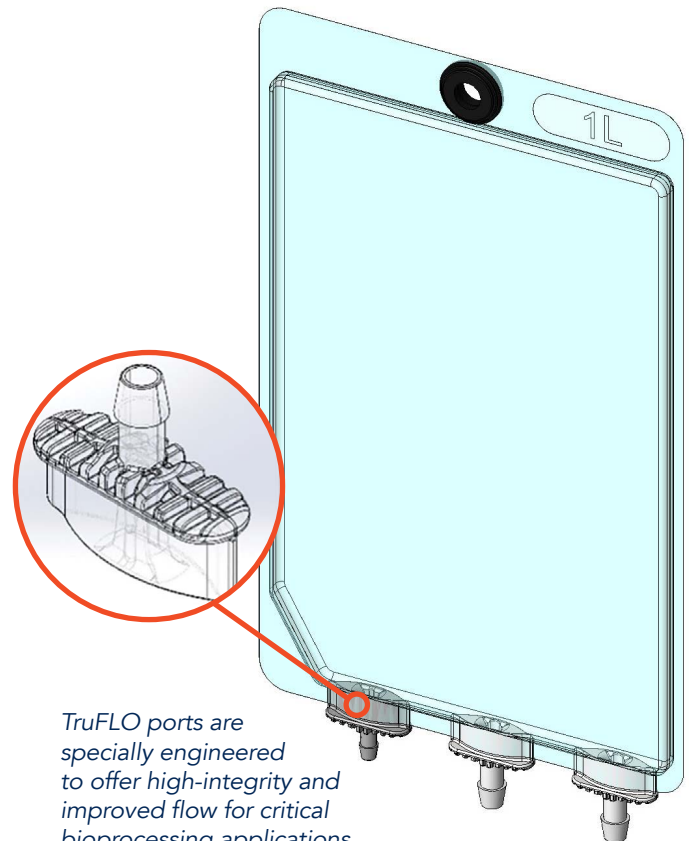
Liquid Single-Use Bags

High-performance fluid storage and transfer bags with optimized reliability, throughput, and quality assurance for critical bioprocessing for a variety of upstream and downstream processes

Liquid single-use bags, low-profile containers engineered for bioprocess fluids. Featuring high-integrity and flow-optimized TruFLO ports, liquid single-use bags offer reliable and high-throughput performance. The industry-proven, medical-grade Renolit 9101 multilayer polyethylene film meets the requirements of ISO and USP biocompatibility tests. The film also meets low-permeability and low-temperature requirements while offering high clarity. Liquid single-use bags have standard sizes available from 50 mL to 20 L in 2 and 3-port options, and can be customized up to 50 L with up to 4-ports in larger chamber sizes (2 L to 50 L).

Liquid single-use bags feature a variety of BPOG-compliant standard and custom configurations

Feature	Configurations
Volume	Standard: 50 mL to 20 L Custom: up to 50 L
Port	Standard: 2-port or 3-port (500 mL to 50 L) Custom: 4-port (2 L to 50 L)
Port Size	1/8 in, 1/4 in, or 3/8 in
Tubing	Standard: Thermoplastic Elastomer (TPE) Custom: Platinum-Cured Silicone (PC)



TruFLO ports are specially engineered to offer high-integrity and improved flow for critical bioprocessing applications

Benefits

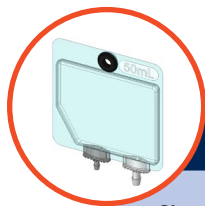
- Unique TruFLO ports design facilitates optimized edge-seal integrity and improved flow rates
- Low-profile design ensures minimal product holdup to maximize product recovery
- Configurable with a wide variety of BPOG-compliant components

Typical Applications

- Buffer and cell culture media
- Bulk product collections and storage
- Chromatography media
- Fraction collection
- Product sampling and transport

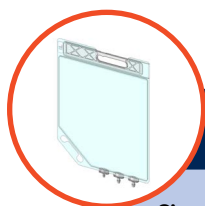
Standard Configurations

Liquid single-use bags with TruFLO ports



2-Port Configurations

Size	Port Sizes	Dimensions (W x L)	Internal Surface Area	Connections*
50 mL	1/4 in	6.25 x 6.25 in	51 in ²	Luer (Body & Insert)
100 mL	1/4 in	6.25 x 7.38 in	64 in ²	Luer (Body & Insert)
250 mL	1/4 in	6.25 x 9.25 in	86 in ²	Luer (Body & Insert)
500 mL	1/4 in	7.75 x 9.62 in	115 in ²	Luer (Body & Insert)
1000 mL	1/4 in	7.75 x 12.88 in	162 in ²	Luer (Body & Insert)
500 mL	3/8 in	7.75 x 9.62 in	115 in ²	MPCs (F&M)
1000 mL	3/8 in	7.75 x 12.88 in	162 in ²	MPCs (F&M)
2 L	3/8 in	14.00 x 15.88 in	320 in ²	MPCs (F&M)
5 L	3/8 in	14.00 x 19.12 in	408 in ²	MPCs (F&M)
10 L	3/8 in	16.50 x 23.62 in	610 in ²	MPCs (F&M)
20 L	3/8 in	16.50 x 31.88 in	874 in ²	MPCs (F&M)



3-Port Configurations

Size	Port Sizes	Dimensions (W x L)	Internal Surface Area	Connections*
500 mL	3/8 in (2) & 1/4 in	7.75 x 9.62 in	115 in ²	MPCs (F&M), Injection Cap
1000 mL	3/8 in (2) & 1/4 in	7.75 x 12.88 in	162 in ²	MPCs (F&M), Injection Cap
2 L	3/8 in (2) & 1/4 in	14.00 x 15.88 in	320 in ²	MPCs (F&M), Injection Cap
5 L	3/8 in (2) & 1/4 in	14.00 x 19.12 in	408 in ²	MPCs (F&M), Injection Cap
10 L	3/8 in (2) & 1/4 in	16.50 x 23.62 in	610 in ²	MPCs (F&M), Injection Cap
20 L	3/8 in (2) & 1/4 in	16.50 x 31.88 in	874 in ²	MPCs (F&M), Injection Cap

* via 12-inch TPE tubing

Medical-Grade Renolit 9101 PE Film



All liquid single-use bags are manufactured with industry-proven, medical-grade Renolit 9101 film, a multilayer film composed of a high-purity biocompatible polyethylene (PE) contact layer with internal ethylene vinyl alcohol (EVOH) oxygen-barrier.

Physical Properties		Quality, Regulatory, and Biocompatibility Properties	
Property	Typical Value*	Category	Property/Test*
Film Thickness	0.325 mm	Composition	<ul style="list-style-type: none"> High-purity polyethylene (PE) and ethylene vinyl alcohol (EVOH) Animal-Derived Ingredient (ADI) Free
Clarity	97% (ASTM D-1003)		
Tensile Strength at Break	13MPa (ASTM D-882)	Biocompatibility	<ul style="list-style-type: none"> ISO 10993-4, Hemolysis ISO 10993-5, Cytotoxicity ISO 10993-6, Implantation ISO 10993-10, Irritation and Sensitization ISO 10993-11, Acute System Toxicity USP <85>, Bacterial Endotoxins – LAL test USP <87>, Biological Reactivity in vitro USP <88>, Biological Reactivity in vivo, Class VI
Elongation at Break	350% (ASTM D-882)		
Break at Cold Temperature	< -45°C (ISO 8570)		
Water Vapor Transmission [†]	0.32 g/m ² /day (ASTM F-1249)		
O ₂ Permeability [‡]	<0.05 cm ³ /m ² /day/bar (ASTM D-3985)		
CO ₂ Permeability [‡]	<0.2 cm ³ /m ² /day/bar (ASTM F-2476)	Extractables/Leachables	<ul style="list-style-type: none"> USP <661.1>, Polyethylene Physicochemical Tests, Extractable Metals, Plastic Additives Ph. Eur. 3.1.5, Polyethylene with additives for containers for parenteral preparations and for ophthalmic preparations
<p>* Transmission values for film gamma-irradiated with 50 KGy. Other are for film gamma-irradiated with 25 KGy.</p> <p>[†] @ 23 °C, 100% RH.</p> <p>[‡] @ 23 °C, 0% RH.</p>			
		Recommended Sterilization Method	Gamma

* Pharmacopoeia and Biocompatibility compliance test reports available upon request

Questions or Inquiries?

More information is available at www.ilcdover.com, or by contacting us at customer_service@ilcdover.com or simply by reaching out to your dedicated ILC Dover sales representative.



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