ILC DOVER

BEYOND BOUNDARIES®

Liquid Single-Use Bags

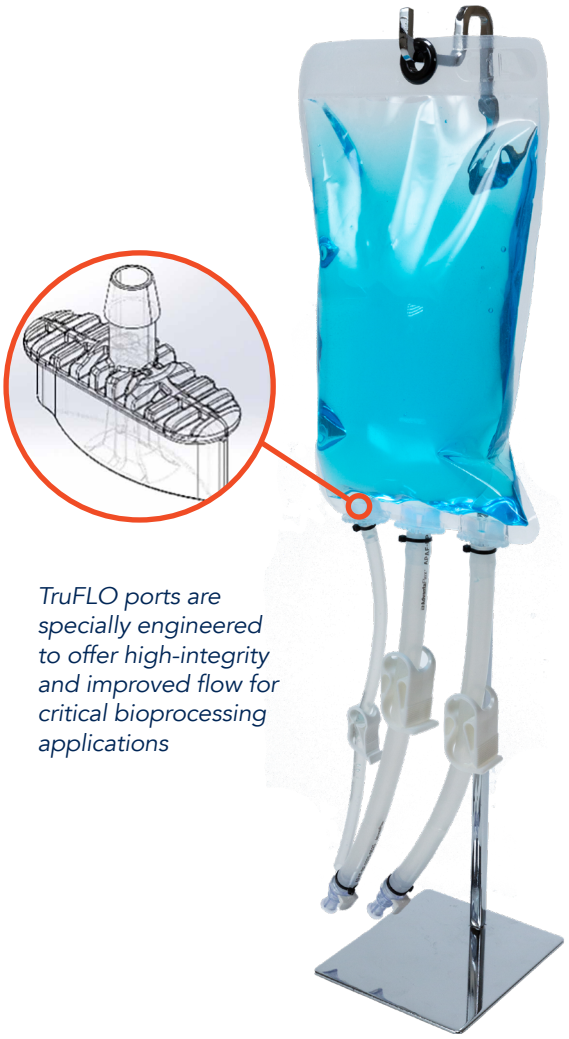
High-performance fluid storage and transfer bags with optimized reliability, throughput, and quality assurance for critical bioprocessing for a variety of upstream and downstream processes

Liquid single-use bags are low-profile containers engineered to 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 are available in standard sizes 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). Custom face-ported 2D bags are also available in 20 L, 50 L, 100 L and 200 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 200 L
Port	Standard Edge: 2- or 3-port (500 mL to 50 L) Custom Edge: 4-port (2 L to 50 L) Custom Face: 3-port (20 L, 50 L, 100 L, 200 L)
Port Size	Edge: 1/8 in, 1/4 in, or 3/8 in Face: 1/4 in, 3/8 in or 1/2 in
Tubing	Standard: Thermoplastic Elastomer (TPE) Custom: Platinum-Cured Silicone (PCS)



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 and filtration buffer
- 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*	Small Part #
50 mL	1/4 in	6.25 x 6.25 in	51 in^2	Luer (Body & Insert)	DF050M2PTL-G
100 mL	1/4 in	6.25 x 7.38 in	64 in^2	Luer (Body & Insert)	DF100M2PTL-G
250 mL	1/4 in	6.25 x 9.25 in	86 in^2	Luer (Body & Insert)	DF250M2PTL-G
500 mL	1/4 in	7.75 x 9.62 in	115 in^2	Luer (Body & Insert)	DF500M2PTL-G
1000 mL	1/4 in	7.75 x 12.88 in	162 in^2	Luer (Body & Insert)	DF001M2PTL-G
500 mL	3/8 in	7.75 x 9.62 in	115 in^2	MPCs (F&M)	DF500M2PTM-G
1000 mL	3/8 in	7.75 x 12.88 in	162 in^2	MPCs (F&M)	DF001M2PTM-G
2 L	3/8 in	14.00 x 15.88 in	320 in^2	MPCs (F&M)	DF002M2PTM-G
5 L	3/8 in	14.00 x 19.12 in	408 in^2	MPCs (F&M)	DF005M2PTM-G
10 L	3/8 in	16.50 x 23.62 in	610 in^2	MPCs (F&M)	DF010M2PTM-G
20 L	3/8 in	16.50 x 31.88 in	874 in^2	MPCs (F&M)	DF020M2PTM-G

3-Port Configurations

Size	Port Sizes	Dimensions (W x L)	Internal Surface Area	Connections*	Smart Part #
500 mL	3/8 in (2) & 1/4 in	7.75 x 9.62 in	115 in^2	MPCs (F&M), Injection Cap	DF500M3PTM-G
1000 mL	3/8 in (2) & 1/4 in	7.75 x 12.88 in	162 in^2	MPCs (F&M), Injection Cap	DF001M3PTM-G
2 L	3/8 in (2) & 1/4 in	14.00 x 15.88 in	320 in^2	MPCs (F&M), Injection Cap	DF002M3PTM-G
5 L	3/8 in (2) & 1/4 in	14.00 x 19.12 in	408 in^2	MPCs (F&M), Injection Cap	DF005M3PTM-G
10 L	3/8 in (2) & 1/4 in	16.50 x 23.62 in	610 in^2	MPCs (F&M), Injection Cap	DF010M3PTM-G
20 L	3/8 in (2) & 1/4 in	16.50 x 31.88 in	874 in^2	MPCs (F&M), Injection Cap	DF020M3PTM-G

** via 12-inch TPE tubing*

Medical-Grade Renolit 9101 PE Film

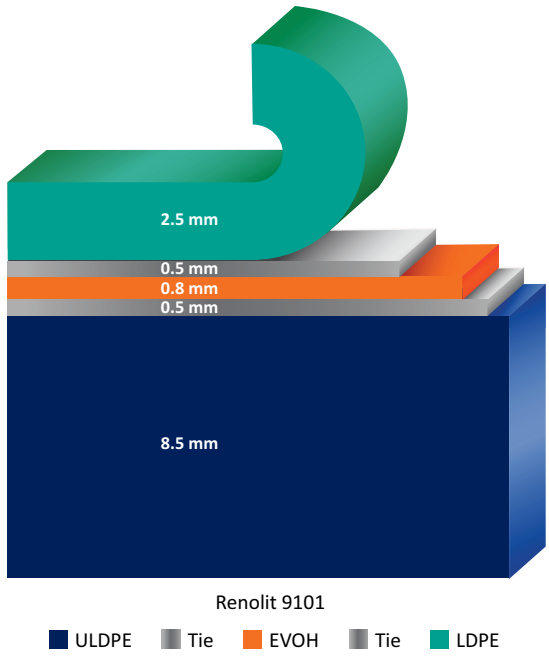
All liquid single-use bags are manufactured with industry-proven, medical-grade Renolit 9101 film, a multilayer film composed of a high-purity biocompatible polyethylene (PE) contact layer with internal ethylene vinyl alcohol (EVOH) oxygen-barrier.

Physical Properties

Property	Typical Value*
Film Thickness	0.325 mm
Clarity	97% (ASTM D-1003)
Tensile Strength at Break	13MPa (ASTM D-882)
Elongation at Break	350% (ASTM D-882)
Break at Cold Temperature	< -45°C (ISO 8570)
Water Vapor Transmission†	0.32 g/m²/day (ASTM F-1249)
O_2 Permeability‡	<0.05 cm³/m²/day/bar (ASTM D-3985)
CO_2 Permeability‡	<0.2 cm³/m²/day/bar (ASTM F-2476)

* *Transmission values for film gamma-irradiated with 50 KGy. Other are for film gamma-irradiated with 25 KGy.*
† *@ 23 °C, 100% RH.*
‡ *@ 23 °C, 0% RH.*

Renolit 9101 PE Film Layers



Quality, Regulatory, and Biocompatibility Properties

Category	Property/Test*
Composition	• High-purity polyethylene (PE) and ethylene vinyl alcohol (EVOH) • Animal-Derived Ingredient (ADI) Free
Biocompatibility	• 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
Extractables/Leachables	• USP <661.1>, Polyethylene Physiochemical Tests, Extractable Metals, Plastic Additives • Ph. Eur. 3.1.5, Polyethylene with additives for containers for parenteral preparations and for ophthalmic preparations
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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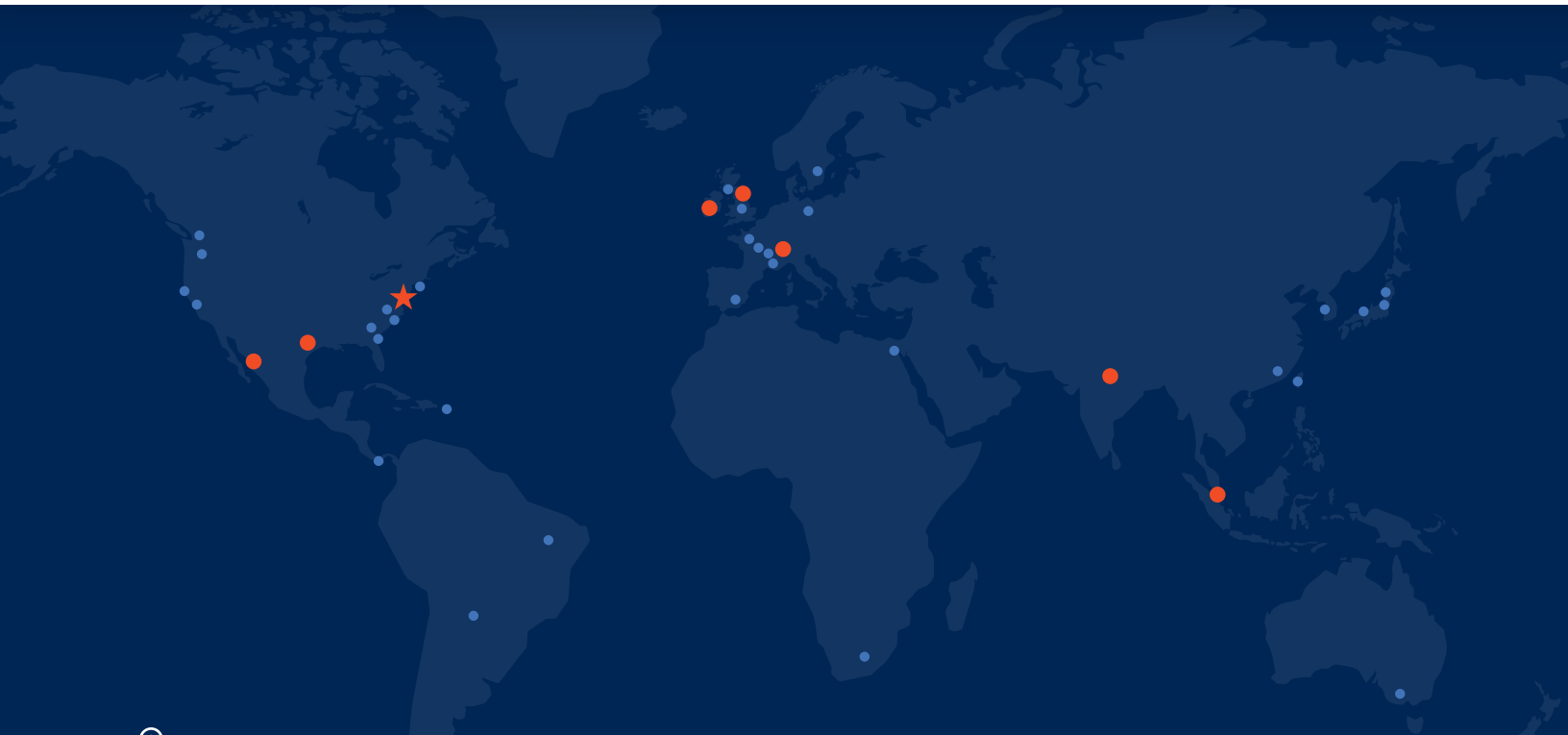

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