ILC DOVER

BEYOND BOUNDARIES®

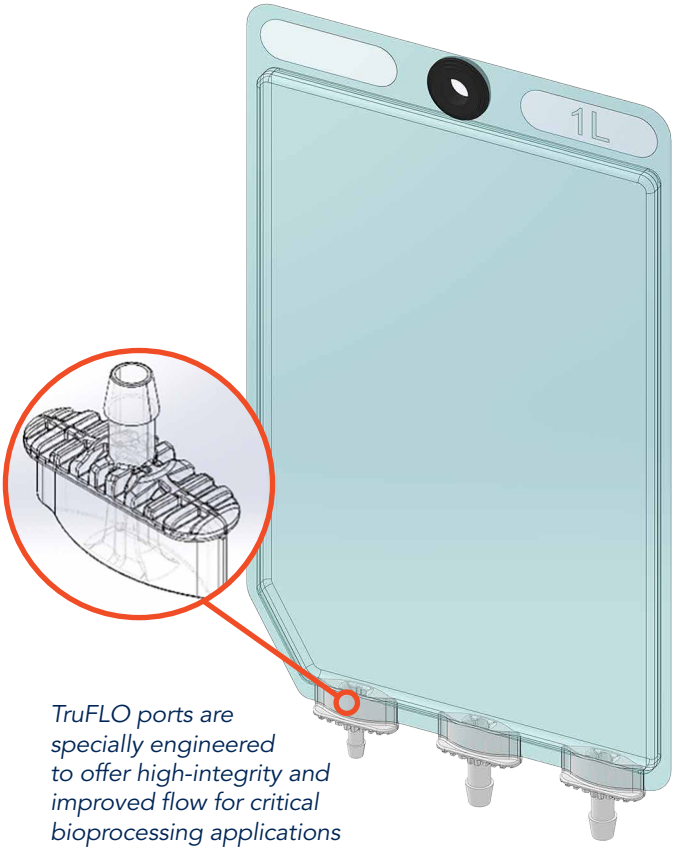
Liquid Single-Use Chambers

High-performance fluid storage and transfer chambers with optimized reliability, throughput, and quality assurance for upstream and downstream bioprocessing applications.

Liquid single-use chambers from ILC Dover are low-profile containers engineered for bioprocess fluids. Featuring high-integrity and flow-optimized TruFLO ports, liquid single-use chambers 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 chamber sizes range from 50mL to 200 L in a variety of edge port and face port designs in 2D configurations.

Liquid Single-Use Chamber Configurations

Feature	Configurations
Volume	Edge: 50 mL to 50 L Face: 20 L, 50 L, 100 L or 200 L
Port	2-port or 3-port (500 mL to 200 L) 4-port (2 L to 50 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



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

Typical Applications

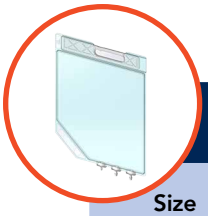
- Buffer and cell culture media
- Bulk product collections and storage
- Chromatography media
- Fraction collection
- Product sampling and transport

Standard Configurations

Liquid Single-Use Chambers with TruFLO Ports

2-Port Configurations

Size	Port Sizes	Dimensions (W x L)	Internal Surface Area	Smart Part #
50 mL	1/8 in	5.38 x 4.75in	25 in^2	EPC050M11-X
100 mL	1/8 in	5.38 x 5.25 in	30 in^2	EPC100M11-X
250 mL	1/8 in	5.38 x 7.00 in	46 in^2	EPC250M11-X
500 mL	1/8 in	7.08 x 7.25 in	66 in^2	EPC500M11-X
1 L	1/8 in	7.08 x 10.30 in	105 in^2	EPC001L11-X
50 mL	1/4 in	5.38 x 4.75 in	25 in^2	EPC050M22-X
100 mL	1/4 in	5.38 x 5.25 in	30 in^2	EPC100M22-X
250 mL	1/4 in	5.38 x 7.00 in	46 in^2	EPC250M22-X
500 mL	1/4 in	7.08 x 7.25 in	66 in^2	EPC500M22-X
1 L	1/4 in	7.08 x 10.30 in	105 in^2	EPC001L22-X
500 mL	3/8 in	7.08 x 7.25 in	66 in^2	EPC500M33-X
1L	3/8 in	7.08 x 10.30 in	105 in^2	EPC001L33-X
2 L	3/8 in	7.08 x 15.75 in	174 in^2	EPC002L33-X
5 L	3/8 in	14.25 x 14.91 in	280 in^2	EPC005L33-X
10 L	3/8 in	16.75 x 18.91 in	441 in^2	EPC010L33-X
20 L	3/8 in	17.50 x 28.41 in	772 in^2	EPC020L33-X



3-Port Configurations

Size	Port Sizes	Dimensions (W x L)	Internal Surface Area	Smart Part #
500 mL	3/8 in (2) & 1/8 in	7.08 x 7.25 in	66 in^2	EPC500M133-X
1 L	3/8 in (2) & 1/8 in	7.08 x 10.30 in	105 in^2	EPC001L133-X
2 L	3/8 in (2) & 1/8 in	7.08 x 15.75 in	174 in^2	EPC002L133-X
5 L	3/8 in (2) & 1/8 in	14.25 x 14.91 in	280 in^2	EPC005L133-X
10 L	3/8 in (2) & 1/8 in	16.75 x 18.91 in	441 in^2	EPC010L133-X
20 L	3/8 in (2) & 1/8 in	17.50 x 28.41 in	772 in^2	EPC020L133-X

Medical-Grade Renolit 9101 PE Film

All liquid single-use chambers 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)

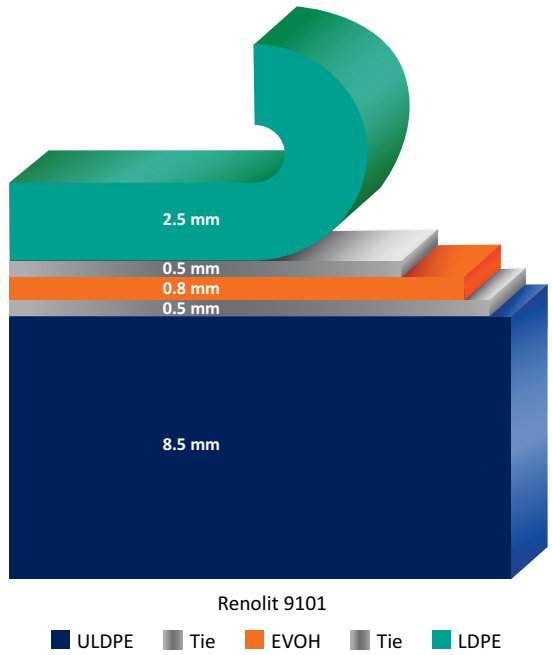
* *Transmission values for film gamma-irradiated with 50 KGy. Other are for film gamma-irradiated with 25 KGy.*
† *@ 23 °C, 100% RH.*
‡ *@ 23 °C, 0% RH.*

Quality, Regulatory, and Biocompatibility Properties

Category	Property/Test*
Composition	• High-purity polyethylene (PE) and ethylene vinyl alcohol (EVOH) • Animal-Derived Component Free (ADCF) and TSE/BSE
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*

Renolit 9101 PE Film Layers



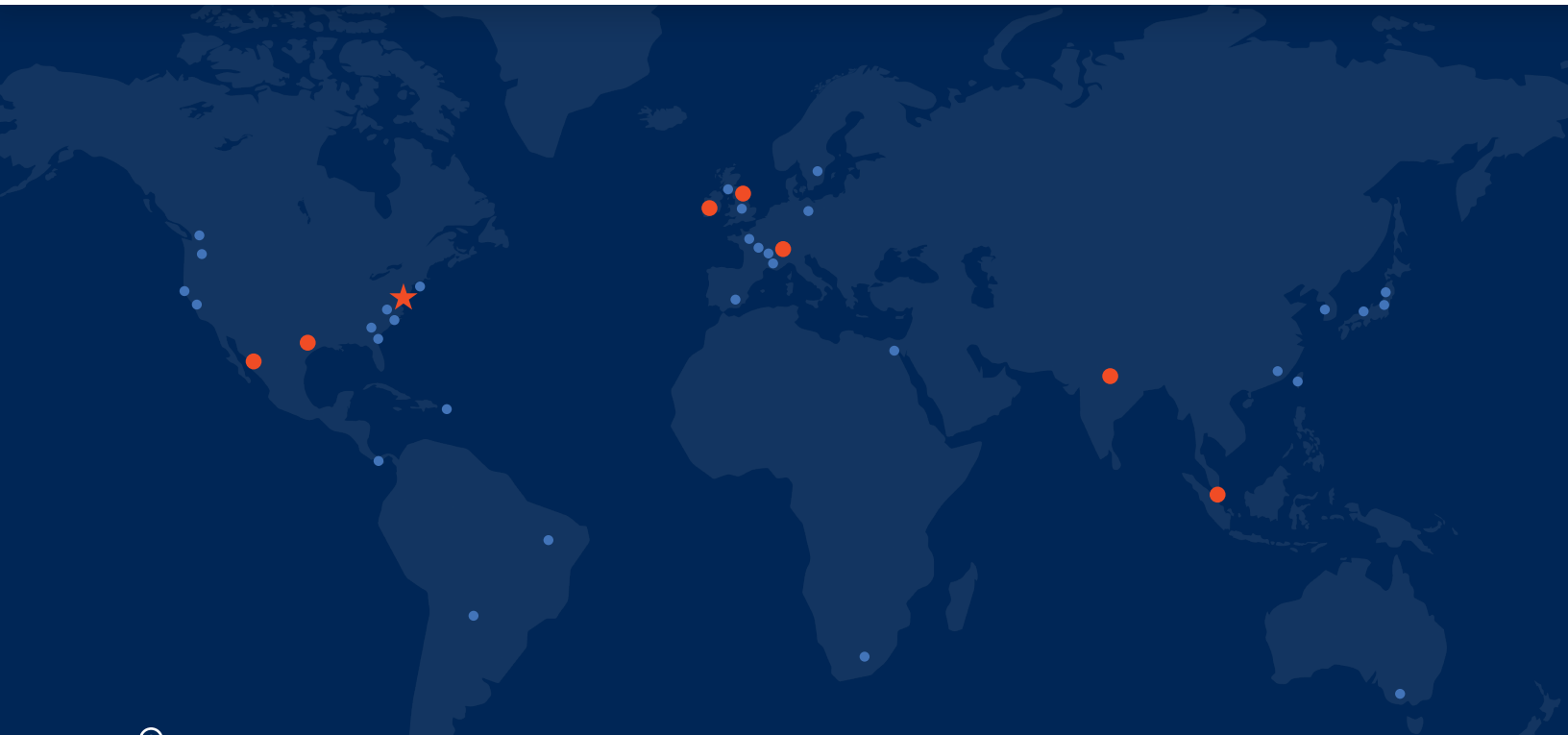
Questions or Inquiries?

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.

ILC DOVER

BEYOND BOUNDARIES®

ILC Dover is a world-leader in the innovative design and production of engineered flexible protective solutions for pharmaceutical and biopharmaceutical, flood protection, personal protection, bulk packaging, and aerospace industries. Our customers will attest to our relentless dedication to high value products, advanced technology, and responsive service, as our visionary flexible protective solutions have improved efficiency while safeguarding people, product, and infrastructure in hazardous conditions since 1947.



HEADQUARTERS

100 Discovery Blvd, Suite 1001
Newark, DE (USA) 19713
customer_service@ilcdover.com
+1.302.335.3911 x506 - Tel
+1 302.335.1320 - Fax

CUSTOMER SERVICE

+1.800.631.9567 (US Toll Free)

WEBSITE

www.ilcdover.com

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