



Labtainer Pro BioProcess Container with BioTitan Retention Device

Next-generation system providing enhanced reliability,
quality, and ease of use



Your workflow, reinvented

Flexibility and assurance without compromise

As technology and innovation advance within the bioprocessing industry, single-use technologies have also made considerable progress in the drug and vaccine manufacturing space. Some of the well-established and well-known advantages of single-use systems are lowered costs, reduced contamination risks, decreased facility footprint, increased flexibility, and production throughput efficiency with less cleanup; all resulting in quicker turnaround and increased production capabilities.

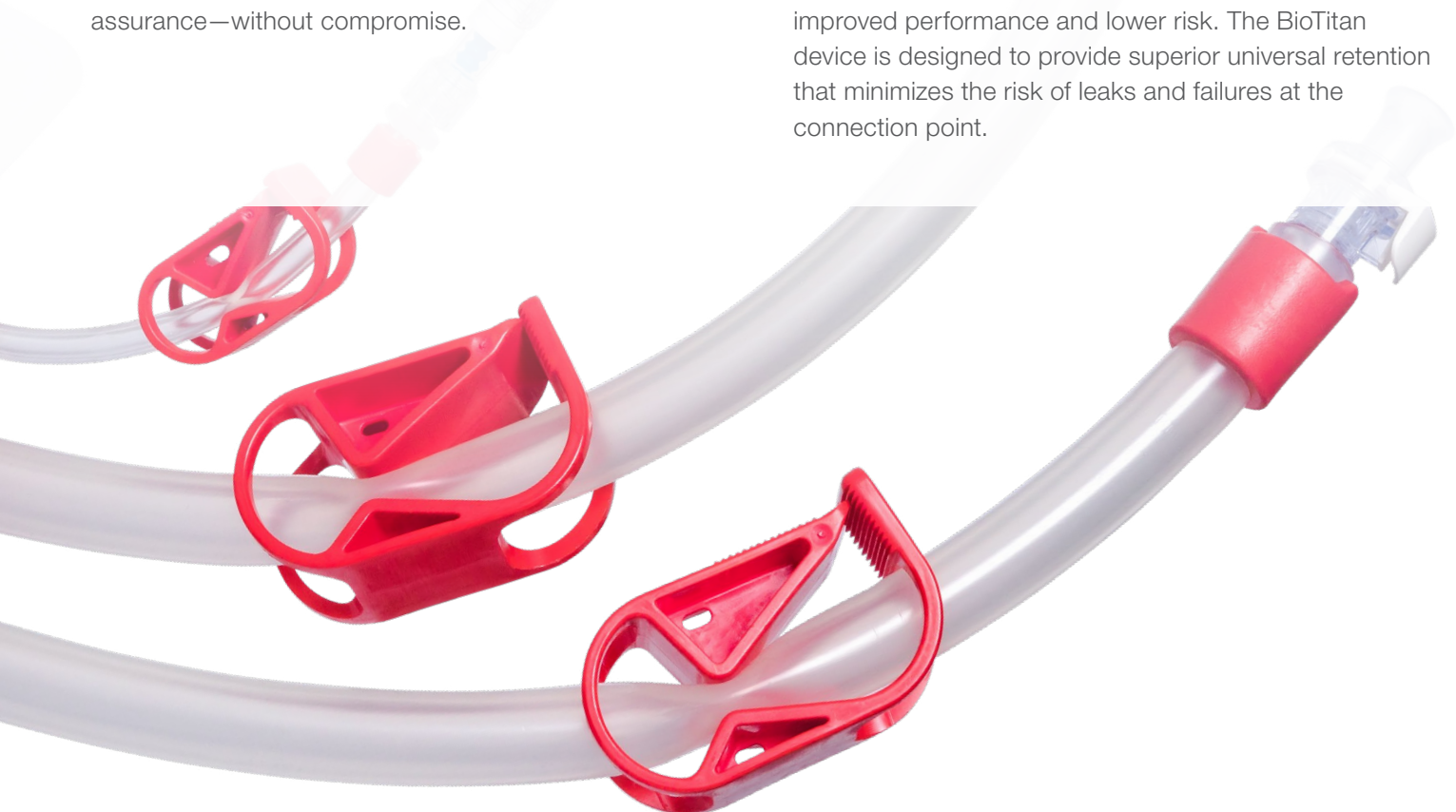
The innovative concept of the Thermo Scientific™ Labtainer™ Pro BioProcess Container (BPC) provides flexibility and assurance—without compromise.

Key advantages

Bioprocessing requirements differ depending on the applications and processes used within a workflow. Products selected should complement these requirements.

The Labtainer Pro BPC was developed to meet a variety of workflow needs. Its 2D style provides enhanced quality, reliability, and ease of use in sizes ranging from 50 mL to 20 L.

This industry-leading product is manufactured with the Thermo Scientific™ BioTitan™ Retention Device for improved performance and lower risk. The BioTitan device is designed to provide superior universal retention that minimizes the risk of leaks and failures at the connection point.



Automated manufacturing

Combining technology and innovation

We create products driven by industry expertise and a history of developing best-in-class solutions. To support an increasing demand for robust, high-quality products, and prompted by the development of the Labtainer Pro BPC, we created Labtainer Automated Manufacturing (LAM) technology. Standard and customized Labtainer Pro BPCs are manufactured using LAM technology.

LAM technology elevates Labtainer Pro BPC manufacturing to help ensure a product that is unsurpassed in terms of quality, reliability, and ease of use. The benefits of automated manufacturing include increased product consistency, a decreased likelihood of manufacturing errors, a safer manufacturing environment, and optimized production process efficiencies.

Key features of LAM technology

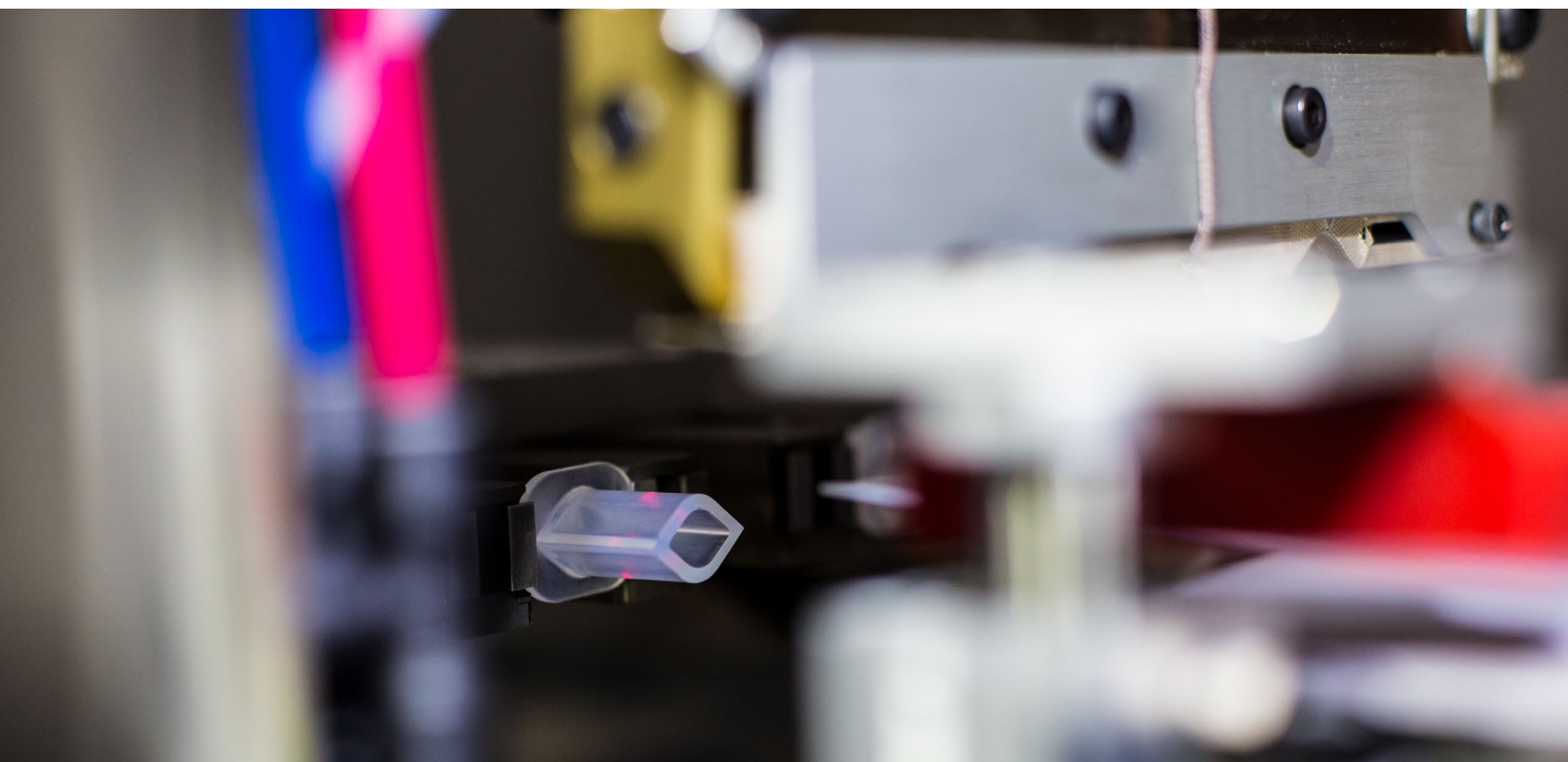
Quality in manufacturing is our top priority. LAM technology has been designed to manufacture BPCs in a completely closed, state-of-the-art environment.

- ISO-certified facility to meet even the most rigorous quality standards
- Helps to reduce particulates; supplied with a HEPA-filtered, positively charged oxygen flow

- Impulse heat-sealing technology for consistent and integral port sealing
- Sensor technology that automatically conducts quality tests during BPC fabrication
- Automated checks for potential defects; any flawed BPC is immediately discarded
- Traceability and supply chain transparency are also supported—individual product and lot numbers are digitally recorded during manufacturing, and are available for future quality checks or inquiries.

Our commitment to quality

Every year, we manufacture millions of BPC chambers. As with all of our BPCs, the Labtainer Pro BPC is manually inspected after manufacturing—this entails a thorough visual inspection before being packaged and shipped. A 100% helium integrity test is conducted on all standard BPCs, helping to ensure that only an integral product is shipped from our manufacturing sites.



Reliability

Improving single-use product performance



Proven film materials

Labtainer Pro BPC products use the same reliable films as other Thermo Scientific™ BPCs, providing consistent contact material throughout your workflow. Thermo Scientific™ Aegis™5-14 and CX5-14 films are both five-layer, 14 mil, single-web cast films produced in a clean room facility. The outer layer is a polyester elastomer coextruded with an ethylene vinyl alcohol (EVOH) barrier layer and a low-density polyethylene (PE) product contact layer. The films are manufactured using no animal-derived components. By using the same materials and components, users of BPCs based on CX5-14 or Aegis5-14 films will be able to adopt Labtainer Pro BPCs with minimal to no qualification.

Enhanced port design and customization

The Labtainer Pro BPC is designed to be configured with two, three, or four ports, without the need for excess ports in the chamber. This results in fewer potential failure points and no liquid holdup. The improved port design features tapered sides that facilitate a structurally stronger seal.

All port sizes (1/8, 1/4, 3/8, and 1/2 in./3.2, 6.4, 9.5, and 12.7 mm) have the same outer body component sealed into the BPC chamber with differing bore and barbed ends utilizing LAM technology.

Improved sealing method

The manufacturing process for the Labtainer Pro BPC incorporates impulse heat sealing for port insertion. This fully automated method of sealing enables a higher level of control over the amount of heat applied, resulting in a consistent and integral seal.

Higher performance and lower risk

The Labtainer Pro BPC is designed with the BioTitan Retention Device to eliminate the risk of leaks and failures at the connection point.

Quality

Striving to provide the highest quality and the best product in the industry



Exceeding our customers' expectations is our priority. We strive to provide the cleanest, lowest-risk, highest-quality product available.

100% integrity testing

Standard Labtainer Pro BPCs are inspected after manufacturing, prior to being packaged and shipped. We also conduct a 100% helium integrity test, helping to ensure that our product has the highest standards of quality when it's delivered to the customer.

Lot-based testing

In our endeavor to attain the highest level of quality assurance, we implemented lot-based bacterial endotoxin (BET) testing and particulate analysis testing (PAT) of Labtainer Pro BPC products. The BET test is an *in vitro* assay for detection and quantification of endotoxins to the USP <85> standard. Particulate analysis testing includes procedures for removing, counting, and sizing particulate contaminants on or in the BPC to the USP <788> standard.

Upgraded packaging

The outer packaging of the Labtainer Pro BPC has been further developed to prevent damage due to unpacking with sharps or other tools, as well as reduce outer packaging material by approximately 25%. The updated packaging features easy-peel tape on the box and an easy-open PE outer bag. The outer box opens on the shorter side, helping reduce material and waste.

Improved outer polyethylene bag

The two outer PE bags allow for a directional-tear removal, maintaining product integrity and providing a particulate barrier prior to product removal. The protective PE bags are manufactured in a controlled environment, resulting in cleaner packaging with less risk of contaminants and particulate accumulation. The outer bags are prepared with scored notches on the top of either side, with the text "Tear to open using notch at either side" printed along the seam for an easy, directional-tear opening.



Ease of use

Designed to optimize the overall user experience

Along with continuously striving to offer the best-performing products in the industry, we endeavor to provide a superior user experience with enhancements to packaging, handling, and ergonomics.

Enhanced ergonomics

The shape of the BPC chamber has been redesigned to allow for optimal drainage. The ergonomic top handle featured on the Labtainer Pro BPC and the addition of a lower handle on the 2, 5, 10, and 20 L units allows easy handling of larger-volume BPCs.

Optimal drainage

The Labtainer Pro BPC is designed to provide optimal drainage through low-profile ports that do not overly extend into the chamber. The Labtainer Pro BPC features chamber geometry that tapers to the ports, reducing the holdup volume at the bottom of the BPC.

Available accessories

Accessories such as the Labtainer Pro BPC tote and Thermo Scientific™ versaCART™ system can aid in filling and draining.

- The Labtainer Pro BPC tote provides BPC protection and access to lines without the need to open the lid. The tray inside the tote is designed with a tilted plate to allow for optimal drainage. This product is constructed of medical-grade, high-density PE.
- The versaCART mobile accessory cart is also available as a complementary product to the Labtainer Pro BPC, enabling storage and usage of multiple BPC manifold configurations—while BPCs and tubing are safely stored on the adjustable stainless steel shelves.



Labtainer Pro BPC versatility

Configurable technology

The Labtainer Pro BPC is a versatile product for high-value liquid-handling applications. It can be used in conjunction with our comprehensive single-use portfolio, which includes flexible and rigid containment solutions and hardware systems to help streamline your unique bioprocessing workflow.

The Labtainer Pro BPC is highly configurable to meet application challenges associated with feeding, collection, dispensing, and any other BPC fluid management requirements that you may have.

Our products and services provide proven performance through innovative, efficient, and highly effective upstream and downstream applications. With one of the largest standard component libraries in the industry, we can provide robust solutions to help make your workflow seamless and successful.

Find out more at [thermofisher.com/labtainerpro](https://www.thermofisher.com/labtainerpro)

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