



Harvestainer BioProcess Containers

Self-contained, single-use solutions for harvesting and separating microcarrier cell culture

Advanced technology in microcarrier separation and cell culture harvest

The Thermo Scientific™ Harvestainer™ BioProcess Container (BPC) is a closed, single-use microcarrier separation system that helps increase product yields compared to traditional methods, while reducing clean-in-place and steam-in-place requirements and water for injection usage.

Unique design features

We leverage our experience in single-use design and engineering to establish innovative technologies for use in adherent cell culture production processes. The Harvestainer system enables separation of microcarriers and harvest of the cell culture supernatant in a single-step closed system.

The Harvestainer system is designed for both small- and large-scale applications. When 12 L or less of microcarrier beads are required to be separated, the 3 L or 12 L Harvestainer system is ideal.

The 3 L and 12 L systems are designed around our 2D pillow-style BPC in a preassembled tray designed for secondary containment and optimal supernatant recovery.

The large-scale Harvestainer BPC system features a dual chamber system comprised of a 200 L 3D BPC with either one or two interior 25 L microbarrier 2D BPCs. These unique design features help enable the separation of cell culture supernatant from the microcarriers.

Safe and simple

Using the Harvestainer BPC helps ensure full containment of the cell culture supernatant in a closed, single-use system for operator safety. Additionally, the advanced design of this BPC reduces holdup volumes to increase recovery efficiencies for more product with less effort. Simple post-use disposal reduces cleaning costs and process cycle times.

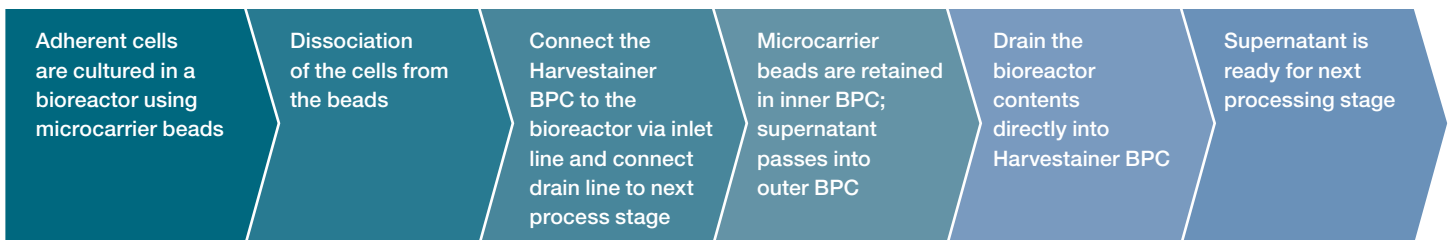
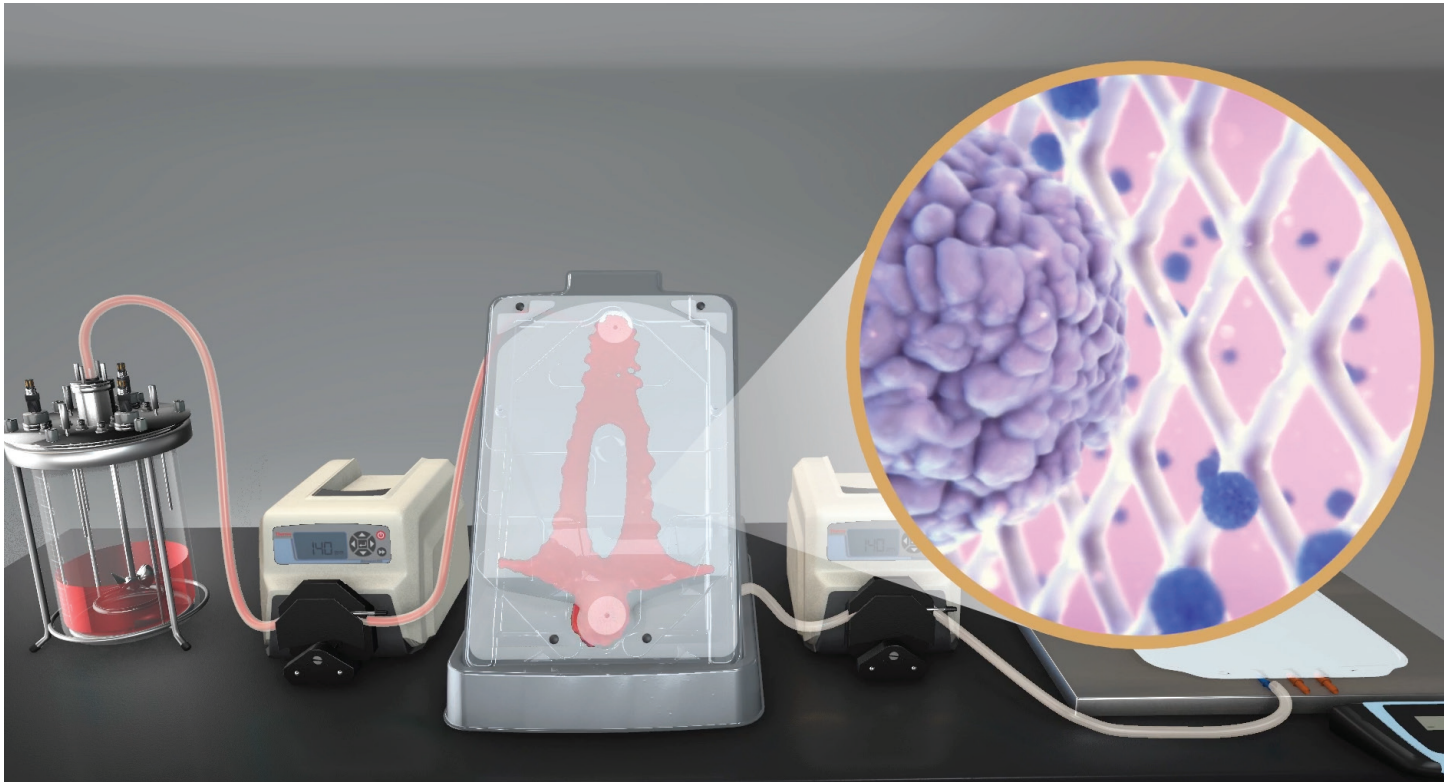


How it works

Well characterized and customizable

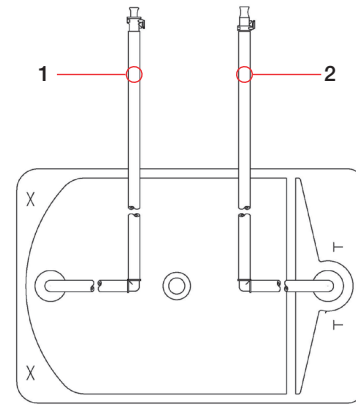
The Harvestainer BPC is constructed of Thermo Scientific™ CX5-14 film, which is a 5-layer, 14 mil cast film produced in a cGMP facility. The outer layer is a polyester elastomer coextruded with an ethylene vinyl alcohol (EVOH) barrier layer and a low-density polyethylene product contact layer. CX5-14 film is manufactured

using animal origin-free components. Like all of our BPCs, the Harvestainer BPC is scalable and can be customized to readily integrate with existing equipment. It is designed to maximize product recovery and is built to the same quality standards found in all Thermo Scientific™ single-use products.



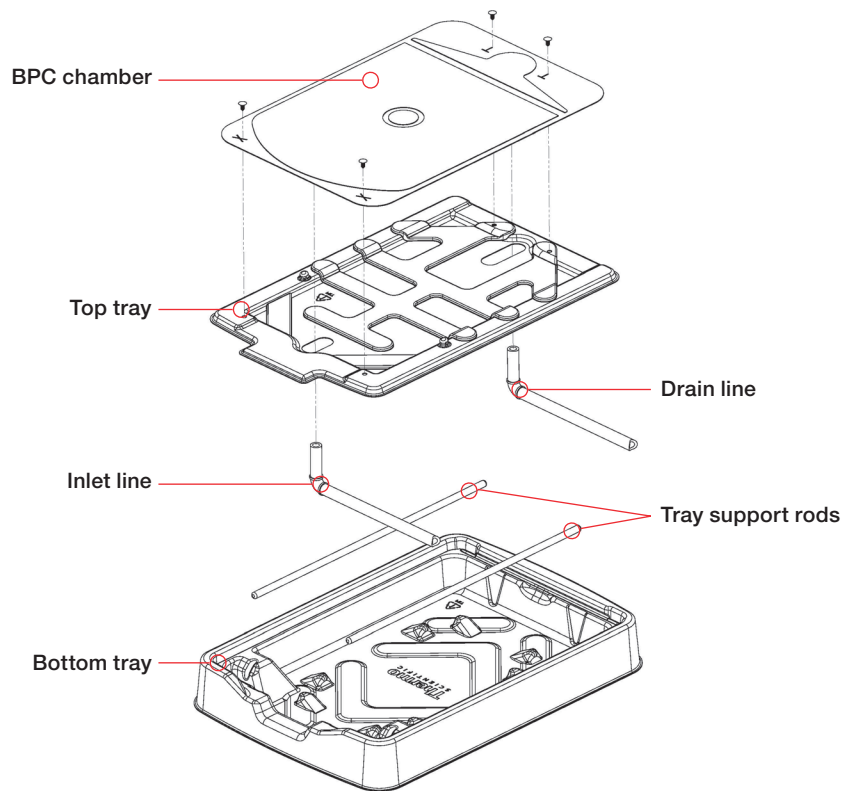
Small-scale Harvestainer BPCs

When 12 L or less of microcarrier beads require separation, the 3 L or 12 L Harvestainer system is ideal for in-line microcarrier separation. These systems consist of a preassembled 2D BPC and tray in a complete single-use unit, where the tray acts as the secondary containment device.



12 L Harvestainer BPC

Line	Description	Lineset	End treatment
1	Inlet line	C-Flex™ tubing ID x OD: 9.53 x 16.0 mm (3/8 x 5/8 in.)	Polycarbonate quick connect 9.53 mm (3/8 in.) MPC body Polycarbonate quick connect MPC plug
2	Drain line	C-Flex tubing ID x OD: 9.53 x 16.0 mm (3/8 x 5/8 in.)	Polycarbonate quick connect 9.53 mm (3/8 in.) MPC insert Polycarbonate quick connect MPC cap



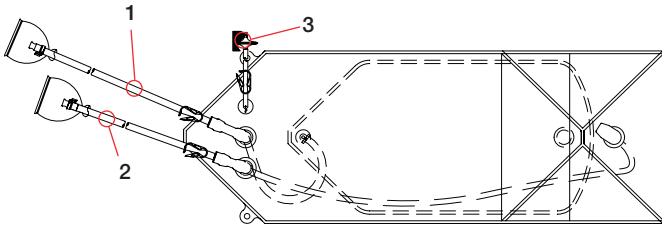
12 L Harvestainer tray and BPC system



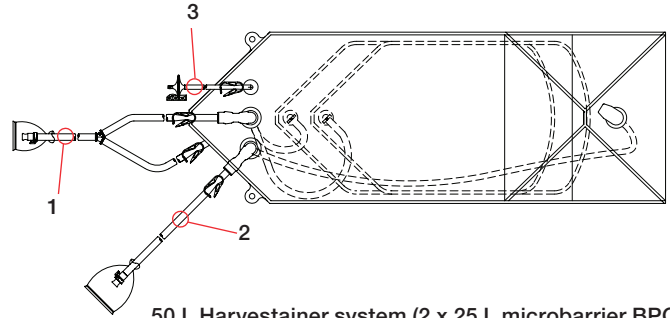
Large-scale Harvestainer BPCs

When more than 12 L of microcarrier beads require separation, the 25 L or 50 L Harvestainer system is well-suited for in-process microcarrier separation workflows. This system consists of a 200 L 3D BPC

with inner 25 L microbarrier 2D BPCs that fit into a conical bottom drum as the secondary containment device. The BPC features a dip tube design for better drainage and minimal manipulation.



25 L Harvestainer system (1 x 25 L microbarrier BPC)



50 L Harvestainer system (2 x 25 L microbarrier BPCs)

Line	Description	Lineset	End treatment
1	Microcarrier inlet line	C-Flex tubing ID x OD: 12.7 x 16.0 mm (1/2 x 5/8 in.)	Polycarbonate quick connect 12.7 mm (1/2 in.) MPX insert Polycarbonate quick connect MPX cap
2	Drain line	C-Flex tubing ID x OD: 12.7 x 16.0 mm (1/2 x 5/8 in.)	Polycarbonate quick connect 12.7 mm (1/2 in.) MPX body Polycarbonate quick connect MPX plug
3	Exhaust line	C-Flex tubing ID x OD: 6.35 x 3.18 mm (1/4 x 3/8 in.)	Pall™ gas filter





Small-scale Harvestainer BPC



Large-scale Harvestainer BPC

Ordering information

Description	Cat. No.
Small-scale	
3 L Harvestainer system	SH31078.01
12 L Harvestainer system	SH31078.02
Large-scale	
25 L Top-drain Harvestainer system with single 25 L microbarrier BPC	SH31071.01
50 L Top-drain Harvestainer system with dual 25 L microbarrier BPCs	SH31071.02
Accessories	
Drum with offset conical insert	SV50517.07
Plastic drum dolly	SV50029.03

Integrated solutions for bioproduction

Single-Use Mixers (S.U.M.s)

A variety of Thermo Scientific™ HyPerforma™ S.U.M.s up to 5,000 L for both upstream and downstream applications



Liquid- and dry-format media

We offer both custom manufacturing and a full range of chemically defined performance media and supplement products



BioProcess Containers (BPCs)

A variety of configurations up to 2,000 L for liquid harvest, storage, and transportation



Sera

Our sera are the industry standards for consistent quality and reliability



Single-Use Bioreactors (S.U.B.s)

50–2,000 L bioreactors capable of integrating with an existing control system



Buffers and process liquids

Custom and standard buffers and process liquids, including Gibco™ Water For Injection (WFI) quality water



Integrity testing systems

A true point-of-use integrity testing system to confirm the integrity of BPCs before use



Find out more at thermofisher.com/harvestainer