

BioProcess Container™ (BPC®) Systems

HyClone offers additional solutions for your liquid handling needs and process applications. BPC systems are available in sizes from 50 mL to 2500 L, designed for applications ranging from dispensing and collection, to mixing, storage and shipping. HyClone BPC systems are manufactured of HyClone's proprietary film, HyQ®CX5-14, which is animal derived component free (ADCF™) and meets all Class VI testing requirements.

Reduced-Serum Media

The HyClone HyQ®-RS product line has been developed using traditional Classical Media formulations, which are enhanced using the natural nutritional components of serum. Formulations available include HyQ® DMEM-RS, HyQ® RPMI-RS, HyQ® MEM-RS, HyQ® DMEM/F12-RS and HyQ® Ham's F12-RS.

Serum-Free Media (SFM)

HyClone's versatile SFM are developed through our Metabolic Pathway Design™ approach to support superior performance in multiple cell culture platforms. This development process produces SFM targeted to increase process yields for each respective cell platform. Current HyClone SFM applications include NS0, insect, Chinese hamster ovary (CHO), PER.C6™ (Crucell NV), HEK 293, MDCK, MDBK COS-7 and Vero cell cultures.

Classical Media

HyClone provides an extensive, and recently expanded line of Classical Media, in liquid, powdered, and ADCF™ (animal derived component free) formulations.

HyQ®Tase™ Cell Detachment Solution

HyQTase Cell Detachment Solution is an ultra-filtered, non-mammalian alternative to trypsin and rtrypsin for gentle, rapid cell detachment of a broad array of adherent cells and tissues. HyQTase requires no neutralization or enzyme inhibitors, streamlining the cell detachment process.

Bovine Growth Serum™ (BGS™)

Designed as a low-cost and readily available FBS replacement, BGS performs better than FBS in many cell culture applications.

Contact HyClone or your local HyClone representative for more information on these or the many other quality HyClone cell culture products.



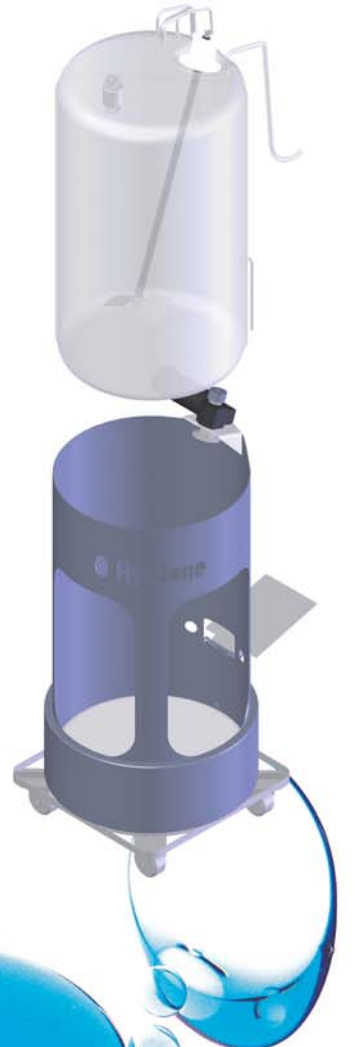
Leading BioProcess Technology

New Products

Single-Use Bioreactor

HyClone and Baxter Bioscience have co-developed the Single-Use Bioreactor based on conventional stirred tank principles. This major advance in disposables technology is applicable for batch and fed-batch animal cell culture processes. The Single-Use Bioreactor is designed to get your bioprocess up and running quickly and economically.

- All culture contact parts are single-use, Class VI tested, and arrive ready to use
 - ✓ No cleaning or sterilization needed
 - ✓ Simplifies validation processes
- 50 and 250 L working volumes in first phase, 1000 L unit in development for second phase availability
 - ✓ Scalable technology to support increasing volume demands
- Simple cost-effective support equipment
 - ✓ Minimizes investment
- Integrated sparging system
 - ✓ Effective oxygen transfer
- Integrates with existing monitoring and control systems
 - ✓ Can utilize existing equipment



bioprocess containers • media • buffers • reagents • serum-free media • FBS replacements • sera



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Pressure Discharge System

The new HyClone Pressure Discharge System consists of an outer stainless steel container for standard BPC® chambers that allows the chambers to be discharged using pressure rather than a peristaltic pump. The system is designed for chromatography and filling applications where pulsing is not acceptable.

- All liquid contact parts are single-use, Class VI tested, and arrive ready to use
 - ✓ No cleaning or sterilization needed
 - ✓ Simplifies validation
- Available for BPC chamber volumes from 20 - 1000 L
 - ✓ Scalable technology for your process needs
- Containers and BPC systems are available from HyClone
 - ✓ Integrated system
- Discharge by up to 1 Bar pressure
 - ✓ No pulsing
- Flexible triclamp end-fitting on the BPC system links through the outer container
 - ✓ No intermediate connections required
 - ✓ Cost effective



Powdertainer™ Powder Feed Bag

Powdertainer Powder Feed Bags are easy-to-use, closed systems for powder material handling. They can be easily integrated into powder hydration systems.

- Single-Use
 - ✓ Completely disposable
 - ✓ Minimizes the risk of cross contamination
 - ✓ Eliminates the need for cleaning and associated validations
 - ✓ Reduces turnaround time
- 3" bottom port
 - ✓ Convenient for filling and dispensing powder
- Closure clamp
 - ✓ Isolates powder in the top section of the bag allowing for easy triclamp connection to the hydration vessel
- Wash down line
 - ✓ Assists in full recovery of powder
- Handle
 - ✓ Provides for easy handling or hanging of the bag



Labtainer™ BioProcess Container™ System

Labtainer systems are flexible and disposable plastic containers manufactured using HyClone's premier medical-grade HyQ®CX5-14 film. They replace traditional rigid walled plastic and glass containers, tubes, and flasks and allow for complete fluid recovery. Labtainer systems are available from 50 mL up to 50 L sizes.



New hanging rack also available

- Single-Use
 - ✓ Completely disposable
 - ✓ Minimizes the risk of cross contamination
 - ✓ Eliminates cleaning
 - ✓ Reduces turnaround time
- Available with C-Flex® tubing
 - ✓ Tube welder/sealer ready

Arca Containers for Liquid Shipping

HyClone has introduced a new liquid shipping system for volumes from 100 to 1000 L. BPC systems are designed to suit these commercially available standard containers.

- Economic polypropylene outer containers
 - ✓ Cost effective delivery system
- The Arca containers are commercially available direct from manufacturer
 - ✓ Proven system
 - ✓ Order flexibility
- Collapsible design
 - ✓ Efficient storage and return
- Locking system for lid
 - ✓ Protects container contents in shipping
- Shipping configurations
 - ✓ Supported through HyClone development and testing
- Supports 100 - 1000 L unit volumes of BPC systems with only 2 sizes of outer containers
 - ✓ Flexibility and scalability

