PRODUCT BRIEF

CSR® Large Volume Solution Hold System

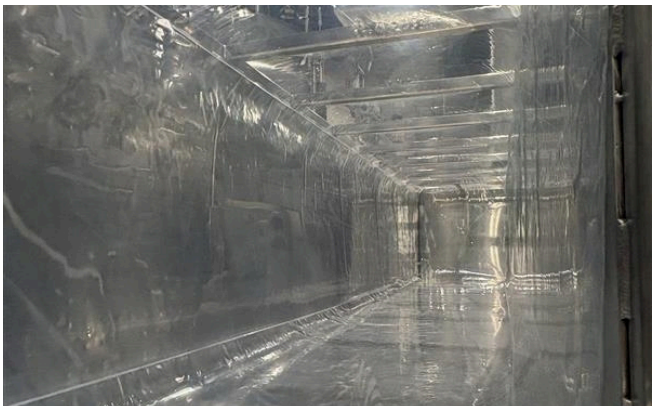
COMMERCIAL-SCALE STORAGE FOR MEDIA AND BUFFER OPERATIONS

Introduction

Unlike traditional storage vessels or tote-based single-use systems, the CSR LVSH is purpose-built for large-volume bioprocess fluid management. Its horizontal design supports high-density storage while simplifying DC installation and reducing operational burden. The LVSH provides a scalable solution for modern single-use facilities and centralized fluid management strategies.

The CSR Large Volume Solution Hold (LVSH) System is a single-use platform designed for large-volume media, buffer, and process solution storage in biopharmaceutical manufacturing environments. Featuring ABEC's patented LVSH design, it integrates a stainless-steel holder, sterile disposable container (DC), customizable instrumentation integration, and automated process control into a single solution. The result is reliable liquid management with reduced contamination risk, minimized cleaning requirements, and improved operational efficiency.

Maximize storage capacity without increasing facility footprint. Shown: stacked 2 x 5000L LVSH configuration



Unlike conventional folded-bag designs, the ABEC sleeping-bag rollout method enables smoother, rapid deployment for large-volume single-use systems.

Key Benefits

Rapid Deployment

- Approximately 15-minute DC deployment
- Proprietary controlled rollout design minimizes handling and reduces the potential for damage during deployment
- Minimal operator intervention following installation

Maximize Facility Utilization

- Space-efficient horizontal design available in working volumes up to 5,000L
- Stackable configuration available to increase capacity without consuming floor space
- Fixed installation supports centralized media management
- Can be located outside primary manufacturing suites

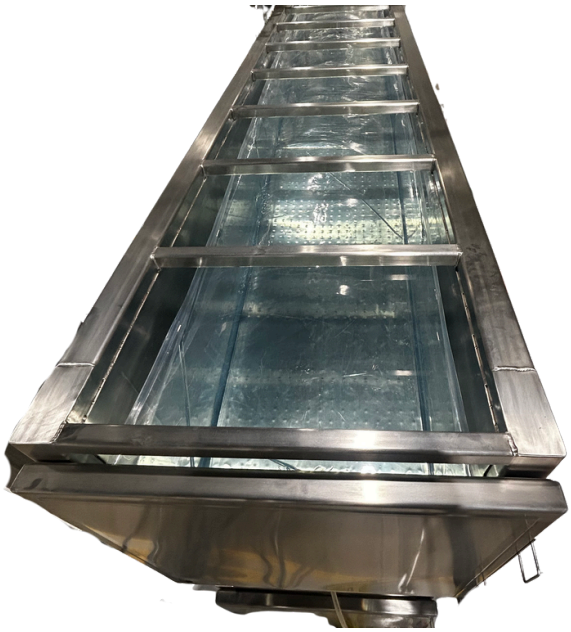
Integrated Process Control

- Temperature, pressure, and volume monitoring options
- Automated monitoring, alarming, and control functionality

COVERED BY ONE OR MORE U.S. PATENTS, INCLUDING U.S. PATENT NO. 12,305,152 B2.

Core Features

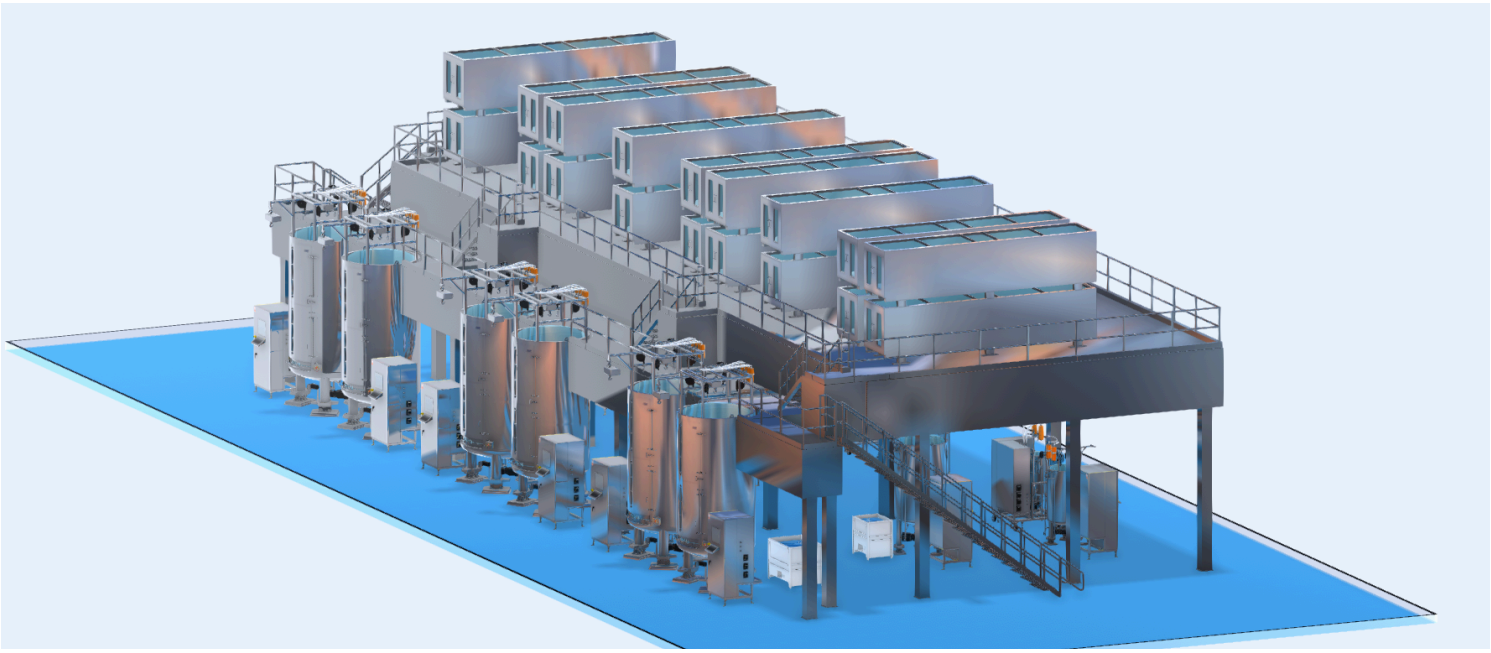
- Up to 5,000L working volume
- Jacketed stainless-steel holder with optional jacketed configuration for temperature control
- Sterile DC assemblies with configurable DC designs
- Horizontal architecture
- Stackable system configurations
- Integrated pressure, temperature, and level monitoring options
- Pressure hold testing capability for DC integrity verification
- Open architecture automation



Fluid storage at scale while maintaining operator access and workflow efficiency.

Ideal Applications

- Media hold for fed-batch manufacturing
- Media hold for perfusion processes
- Buffer staging and campaign management
- Intermediate solution storage
- Centralized media and buffer management
- Closed single-use bioprocessing operations



LVSH systems can be deployed across multiple process steps, supporting centralized fluid management strategies. ABEC designs solutions for any combination of liquid volumes and holder quantities.

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