

Hygienic & Aseptic Buffering

MPV300AB & MPV300HB Series

Process Vessels to minimize product loss

The OMVE buffer tanks are designed to enhance efficiency and reduce product loss during production. On laboratory and pilot-scale process lines, the filling and closing capacities of filling systems is often a bottleneck. By integrating a buffer tank between the UHT system and the filling system, you can establish a continuous production process that delivers consistent, high-quality output with a minimum of product loss.

The buffer tanks seamlessly integrate into your production line, offering flexible control options. You can manage the tank directly from its own dedicated touchscreen and PLC interface.

The buffer tanks feature a double-wall design for efficient cooling down after sterilization. The systems are built with a standard Bottom IN–Bottom OUT configuration, ensuring optimal flow and hygiene. For hygienic demanding applications, OMVE supplies hygienic buffer tanks as well. The tanks are available in hygienic or aseptic execution, when full aseptic conditions are required.



Features & Benefits

- Full integration with the HTST/UHT system
- Stainless steel industrial design
- Plug & play system
- Full automatic control
- CIP ready
- Sterilization valves & steam traps (aseptic execution)

Applications

- Dairy
- Plant based beverages
- Energy drinks
- Functional beverages
- Soft drinks
- Juices
- Flavored waters and teas

Working Principle

The MPV300AB & MPV300HB series are designed to provide operators with maximum flexibility for storing and feeding products to filling stations. The product is fed from the UHT system to the buffer tank, and discharged via the bottom valve of the tank into a filling station. To minimize mechanical stress on the product and prevent contamination, the product is discharged using (sterile) air under pressure.

The system is controlled through an intuitive touchscreen, providing operators with full control and an overview of parameters, including temperature and pressure.

The system is fully CIP-ready and can be easily connected to an external CIP station for cleaning. SIP on the MPV300AB is fully automated and carried out using an external clean steam source.



Optional Accessories

- Conductivity - Brix measurement
- High speed magnetic mixer
- Customized integration
- Heating & Cooling
- Platform for easy access
- External CIP unit & CIP return pump
- Level indication measurement

Specific for aseptic buffer:

- Additional steam filters
- Aseptic double seat valve
- Aseptic sample valve

Specifications

Product Code	MPV300 Series
Vessel size(s)	50L, 100L, 200L, 400L, 600L & 1000L
Pressure	3bar(g) [43,5psi]
Temperature	Up to 140°C [284°F]
Materials	
Product line	SS AISI 316
Weights & Dimensions	
Weight	Available on request
L x W x H	Available on request
Required utilities	
Electrical supply	370-400Vac/ 3ph+N+E/ 50Hz/ or 200-240Vac/ 3ph+E/ 60Hz
Cooling water	2,5bar(g) [36psi], 10L/ min
Compressed air	6bar(g) [87psi]
Steam MPV300AB	3,5bar(g) [51psi]
Drains	Required