

Fermentation



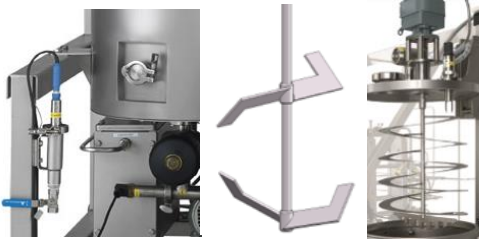
Full control over your process

The OMVE MPV-FE vessels are designed to startup your lab and pilot fermentation projects in a fast, easy and controlled way. The system is delivered plug & play and includes everything for you need to ferment a wide range of products. You can use the system to simulate an industrial process, but also for small production.

| Fermentation | | | |
|--------------------------|-------|--------|--------|
| Fermentation temperature | 35 | C | |
| Start cooling at pH | 4.5 | | |
| Cool down to | 35 | C | |
| Mixer | Speed | Pulse | Pause |
| 1. Heat up | 2 % | 12 sec | 22 sec |
| 2. Insert ferment | 3 % | 13 sec | 23 sec |
| 3. Fermentation | 4 % | 14 sec | 24 sec |
| 4. Cool down | 5 % | 15 sec | 25 sec |
| 5. After cooling | 6 % | 16 sec | 26 sec |

Control all steps over time

The system is supplied with a PLC and touch screen. This gives you the possibility to adjust the parameters over time, based on your application. With the OMVE Fermentation program you can set and control all process steps fully automated.









Instrumentation included

The fermentation equipment is supplied with a low shear mixer (low speed ribbon or a marine impeller), a temperature sensor, pH sensor and all necessary instrumentation. The system can be supplied with one two or three vessels.

Depending on the configuration and application, the supplied fermentation vessel can be pressurized or atmospheric. The pressurized vessels can be sterilized before processing. Cleaning is possible inline: the vessels are connected to the OMVE CIP units.

Available Accessories

| | | | | | |
|---|---|---|---|--|---|
|  |  |  |  |  |  |
| Sample valve | Funnel | Cooling tubes | Dosing system | Gas injection | CIP unit |

More accessories are available



Specifications

| | | | | | |
|--------------------|---|---------------------------|----------------------------|----------------------------|----------------------------|
| Product code | MPV220-FE | MPV350-FE | MPV3100-FE | MPV3200-FE | MPV3400-FE |
| Vessel sizes* | 20L | 50L | 100L | 200L | 400L |
| Min. batch size*** | 5L | 10L | 20L | 40L | 80L |
| Pressure Vessel* | 1-3 bar(g) [14,5 – 43,5psi] | | | | |
| Temperature* | Up to 90°C [194°F] | | | | |
| Materials | | | | | |
| Product side | SS AISI 316 | | | | |
| Dimensions | | | | | |
| LxWxH | 90x90x170cm 36x36x67" | 100x90x170cm 40x36x67" | 110x110x190cm 44x44x67" | 120x110x190cm 48x44x67" | 140x120x190cm 56x48x67" |
| Weight | 200 – 800 kg depending on the final configuration | | | | |
| Utilities | | | | | |
| Electricity | 400V/3ph/50Hz or 220V/3ph/60Hz | | | | |
| Compressed air | 6bar(g) [87psi] | | | | |
| Steam | 3,5bar(g) [51psi] | | | | |
| Cooling water | 2,5bar(g) [36psi] | | | | |

*larger vessels on request

**based on sterilization with steam

***depending on final configuration

Equipment family

The OMVE Multi-Purpose Vessels are used in a very broad range of applications. Every application has its own specific requirements but can also be combined in one vessel. For more detailed information, consult our OMVE staff. The groups are divided in 4 main groups:



MPV-BL
Blending & Mixing Vessels



MPV-BC
Batch Cooking
Batch Processing



MPV-AB / HB
Aseptic Buffer Vessels
Hygienic Buffer Vessels



MPV-FE
Fermentation Vessel

Why OMVE

- ✓ OMVE is fully **specialized** in manufacturing R&D and Pilot plant equipment since 1993
- ✓ OMVE is the **preferred supplier** for the leading multinationals worldwide
- ✓ OMVE Systems are designed and manufactures according the **highest industrial standards**
- ✓ OMVE Systems have **2 years'** warrantee
- ✓ OMVE Systems are supplied with CE **certification**
- ✓ OMVE offers the **most comprehensive service** in the market