

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	370-400Vac /3ph+N+E /50H or 200-240Vac /3ph+E /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

- ✓ Since 1993, we have **specialized** in supplying manufacturing R&D and pilot-plant equipment.
- ✓ OMVE is a **preferred supplier** to leading multinationals worldwide.
- ✓ OMVE systems are designed and manufactured according to the **highest industry standards**.
- ✓ OMVE systems come with a **two-year** warranty.
- ✓ OMVE systems carry **CE certification**.
- ✓ OMVE offers the **most comprehensive service** available on the market.