

Homogenizes and Emulsifies

HP102 In-Line Homogenizer

For Accurate Simulation of Your Production

The OMVE HP102 in-line high-pressure homogenizers are designed to run continuously with the OMVE HTST/UHT systems to accurately simulate production processes.

High-pressure homogenization gives better properties to liquid products, such as improved stability, shelf life, taste, mouth feeling and can reduce the number of additives required.

The OMVE HP102 homogenizers offer a cost-effective build and are designed to hygienically operate in-line, without pulsation dampers, that can create unwanted dead-ends. The automation level allows for operation without deviations. The HP102 homogenizers can seamlessly connect to the HT220 Basic or be used as stand-alone solutions.



Features & Benefits

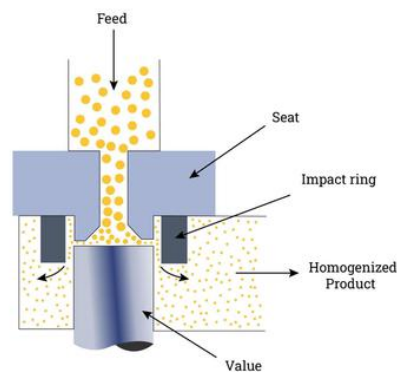
- Hygienic design or aseptic design with sterile filter
- Two-stage homogenization valves
- Minimum pulsation due to the two plungers
- No pulsation dampers required
- High level of automation
- No steam required
- Suitable for CIP and SIP
- Minimum dead volumes
- Easy operation with HT220 basic systems

Applications

- Dairy
- Plant-based beverages
- (Vegetable) creams
- Juices
- Nutraceuticals

Working Principle

The homogenizer operates by forcing the liquid through a narrow, high-pressure gap between a stationary and a rotating component. This process subjects the liquid to intense shear and pressure, breaking down particles and droplets into smaller, uniform sizes (of 0.2 to 2 microns). The turbulence and mechanical forces generated during this process lead to thorough mixing and stabilization of the product.



Optional Accessories

- Aseptic execution
- Data logger
- By-pass for higher flow-rate during CIP
- Automation upgrade
- Mobile trolley

Specifications

Product Code	HP102-20	HP102-30
Adjustable flow rate	10-30L/hr	15-55L/hr
Homogenization pressure	600bar [8700psi]	400bar [5800psi]
Homogenization stages	2	2
Number of plungers	2	2
Max. viscosity (in-line)	Approx. 2000cPs	
Max. particle size	0,5mm	
Operating temperature	< 90°C [194°F]	
Pressure reading	Digital	
Minimum feed pressure	0	
Cleaning temp. @ 30 min.	90°C [194°F]	
Sterilization temp. @ 30 min.	140°C [284°F]	
Lubrication	Grease	
Materials		
Product side	SS316	
Weights & Dimensions		
Weight	200kg [441lbs]	
L x W x H	880 x 880 x 600mm [34,6 x 34,6 x 23,6"]	
Required utilities		
Electrical supply	370-400Vac/ 3ph+N+E/ 50Hz/ 16A or 200-240Vac/ 3ph+E/ 60Hz/ 16A	
Water supply (for aseptic version)	2,5bar(g) [36psi]	



Integrated homogenizer in miniature UHT line

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Lab & Pilot Equipment

