

Homogenizes and Emulsifies

HP303 Pilot 3-Piston Stand-alone Homogenizer

Accurate Production Simulation for Higher Stability

The OMVE HP303 stand-alone high-pressure homogenizer is designed to run independent [locally] at capacity of 40-80 l/h, with maximum 800 bar. The unit has ball type pump valves and replaceable pump valve seats, suitable for viscous and abrasive products.

With 3-piston homogenization and frequency converter, the processed product is improved in stability, taste mouth feeling and can also reduce the number of additives required.

This adaptable homogenizer is easy to use in-line with the OMVE HTST/UHT system and does not require pulsation dampers. The homogenizer can be fully integrated with automatic pressure or flow control depending on your needs. This will result in fewer operation errors, lower maintenance costs and more processing productivity.



Features & Benefits

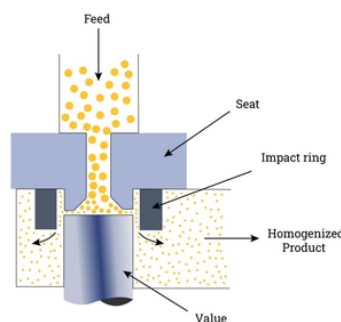
- 3 Plungers for minimum pulsation
- Easy operation with feed hopper
- Splash lubrication of all bearings and cross heads
- Two-stage homogenization valves
- Minimum of dead volumes
- Pressure transducer with digital indicator for total and 2nd stage pressure in front panel

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.

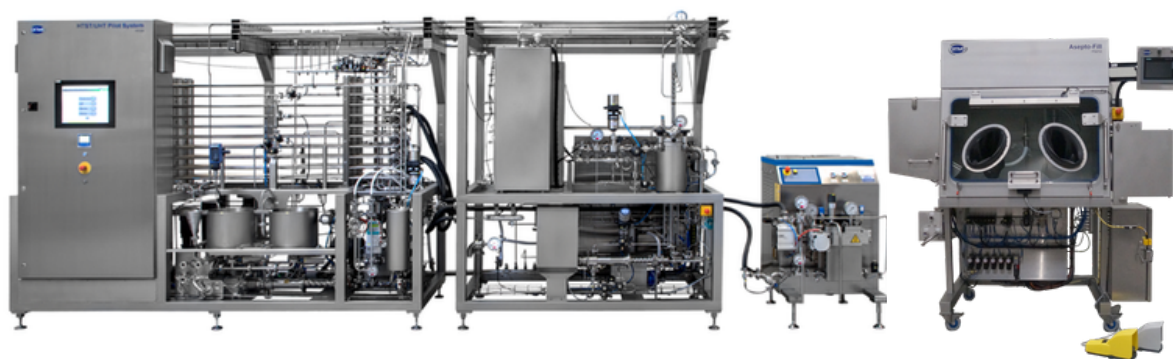


Optional Accessories

- Aseptic execution
- Automation upgrade
- By-pass for higher flow-rate during CIP
- Feed hopper for stand-alone functionality
- Low pressure alarm

Specifications

Product code	HP303-30
Adjustable flow rate	40-80L/hr
Homogenization pressure	600bar [8700psi]
Homogenization stages	2
Number of plungers	3
Max. viscosity (in-line)	Approx. 2000cPs
Max. particle size	0,5mm
Operating temperature	< 85°C [194°F]
Minimum feed pressure	2 bar + 0,05 bar per % solid content (3 bar)
Cleaning temp. @ 30 min.	90°C [194°F]
Lubrication	Water (continuous)
Materials	
Product side	Stainless Steel 316 High Performance Super Duplex SS
Weights & Dimensions	
Weight	175kg
L x W x H	60 x 55 x 85 cm [23,5 x 21,5 x 33,4"]
Required utilities	
Electrical supply	370-400Vac/ 3ph+N+E/ 50Hz/ or 200-240Vac/ 3ph+E/ 60Hz
Water supply	2,5bar(g) [36psi]



Integrated homogenizer, controlled by the HMI of the UHT system