

In-Line Sterilization

HT223 Laboratory DSI System | HT323 Pilot Plant DSI System

The add-on Direct Steam Injection with flash tank system

Direct steam injection (DSI) requires highly accurate control of the steam that is injected in the product to ensure an accurate temperature. In the flash tank the product is rapidly cooled under vacuum. The flash tank pump will pump the product further through the system.

OMVE has designed a fully sanitary DSI with flash tank system that offers a high level of automation to make the operation very user-friendly. This unit can be added to an existing UHT system.



The system can be fully controlled by the HT220 or HT320 system. The nominal capacity ranges from 20L/hr up to 200L/hr.

Features & Benefits

- User-friendly
- Aseptic design
- Automatic CIP/ SIP
- High level of automation
- Up to 20bar flash tank pump outlet pressure
- 0,2bar(a) vacuum for cooling in the flash tank

Applications

- Baby food
- Plant-based protein drinks
- Dairy products
- Low viscosity drinks with small particles

Working Principle

The HT223/ HT323 System gives the operator maximum flexibility in heating various liquid products with direct steam injection. It is possible to treat your product with different temperatures to simulate your industrial process.

During the typical operation, three processes can be distinguished: sterilization (SIP), production and cleaning in place (CIP).



Optional Accessories

- Connection to the homogenizer
- External data logging
- Variable holding tubes
- Remote assistance

Specifications

Product Code	HT223	HT323
Size	20L/hr or 50L/hr	20L/hr up to 200L/hr
Nominal / process flow rate	20L/hr (10-30L/hr) 50L/hr (30-80L/hr)	50L/hr / 30-90L/hr
Max. temperature steam	160°C [320°F]	160°C [320°F]
DSI Heat Exchanger		
Internal diameter/ connection	½"	½" , ¾"
Max. particle size	1mm [0,08"]	1mm [0,08"]
Viscosity @ injection	Up to 500cPs	Up to 500cPs
Materials		
Product side	SS316	SS316
Weights & Dimensions		
Weight	250kg [551lbs]	350kg [771lbs]
L x W x H	1050 x 1020 x 1450mm [41,3 x 40,2 x 57"]	1500 x 1300 x 2000mm [59 x 51,2 x 78,7"]
Required utilities		
Electrical	370-400Vac/ 3ph+N+E/ 50Hz/ 16A or 200-240Vac/ 3ph+E/ 60Hz/ 32A	
Steam for DSI	6-8 bar(g) [88 - 116psi]	



The HT223 and HT323 can be seamlessly integrated with other OMVE equipment.