

HT320 Pilot Heat Treatment System

Pilot Pasteurization and Sterilization

Small scale, industrial performance



Tubular Heat Exchanger

Plate Heat Exchanger

Direct Steam Injection

Scraped Surface Heat Exchanger

OMVE HT320 HTST/UHT pilot processing equipment give Research & Development, Quality Assurance and Pilot departments access to a unique formula of continuous flow heat treatment processes for a very broad range of products. The pilot systems can be carried out with different heat exchangers and have a very low dead volume. The entire system is operated by a central PLC for easy operation. HTST/UHT systems can be designed at different capacities from 10 l/h up to 500 l/h. Higher capacities on request.

Unlike other systems, the OMVE HT320 HTST/UHT pilot systems are based on modules that can be configured to customer specifications. The configuration of the HTST/UHT system depends on product and process specifications. All processes can be performed aseptically.

Unique features

- Industrial A-brand components
- Modular build
- Supports different kinds of heat exchangers
- Fully automatic CIP and SIP facility
- Inline operation with other equipment
- Low product hold-up
- Broad range of accessories to suite your requirements
- High level of automation

Applications

- Dairy products
- Beverages
- Baby food
- Tea & coffee
- Desserts and puddings
- Fruit and vegetable juices & purees
- Health and nutritional product
- Pharmaceuticals
- Sauces and soups

Standard accessories

- Different kind of heat exchangers
- Different kind of feed tanks
- Different kind of holding cells
- Mixer in feed tank
- Flow meter / control
- Additional heating circuit
- Aseptic upgrade
- Data logging facilities



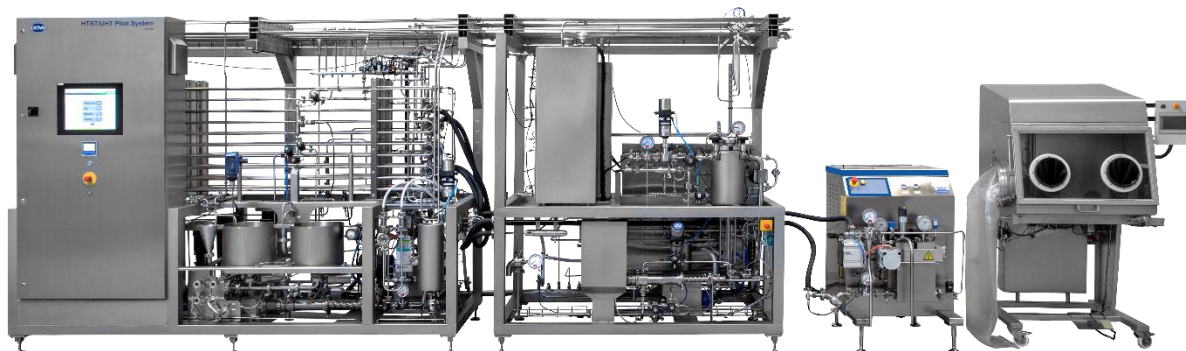
Specifications

Product code service unit	HT320-20	HT320-50	HT320-100	HT320-200
Adjustable flow rate	10-50L/h	20-80L/h	60-150L/h	100-300L/h
Pressure Product pump	10 bar /20bar* [145psi / 290psi]			
CIP pump flow rate	400-800L/h			
Cleaning temp. @ 30 min.	70°C / 85°C* [158°F / 185°F]			
Sterilization temp. @ 30 min.	140°C [284°F]			
Max. Temperature boiler (medium side)	160°C [320°F]			
Internal diameter tubes	8mm /10mm [0,3" /0,4"]	8mm /10mm [0,3" /0,4"]	10mm /16mm [0,4" /0,63"]	10mm /16mm [0,4" /0,63"]
Max viscosity tubes	2500cPs	2500cPs	2000cPs	1500cPs
Max viscosity plates	500cPs	500cPs	200cPs	200cPs
Max viscosity DSI	100cPs	100cPs	100cPs	100cPs
Max viscosity SSH	>2500cPs	>2500cPs	>2500cPs	>2500cPs
Max particles plate	1mm [0,04"]	1mm [0,04"]	1mm [0,04"]	1mm [0,04"]
Max particles tube	3mm [0,12"]	3mm [0,12"]	4mm [0,16"]	4mm [0,16"]
Max particles DSI	NA	NA	NA	NA
Max particles SSHE	7mm [0,27"]	7mm [0,27"]	15mm [0,6"]	15mm [0,6"]
Heating hot water (electrical)	Yes	Yes	NA	NA
Heating hot water (steam)	Yes	Yes	Yes	Yes
Heating direct with steam	Yes	Yes	Yes	Yes
Direct Steam Injection (DSI)	Yes	Yes	Yes	Yes
Overall dimensions				
L x W x H	175 x100x180cm [70"x40x71"]	200x100x180cm [80"x40x71"]	250x100x180cm [98"x40x71"]	250x120x180cm [98x48x71"]
Materials				
product side	SS316			
Required utilities				
Electrical supply	400V /3ph /50Hz or 220V /3ph /60Hz			
Compressed air	6 bar(g) [87psi]			
Water supply	2,5bar(g) [36,5psi]	Chilled water supply	3,5bar(g)[51psi]	
High pressure steam	6-8bar(g) [87-116psi]	Low pressure steam	3,5bar(g)[51psi]	

*optional

Integration with other equipment

The OMVE HTST/UHT pilot systems are compatible with different processing equipment, providing a unique possibility to simulate an industrial line on laboratory or pilot scale. All equipment is controlled by a central operation system.



1 - Complete integrated process line