

HT220DSI Integrated Direct & Indirect System

# Inline Pasteurization and Sterilization



Automated Steam Injection Technology

Tubular Heat Exchanger  
Indirect

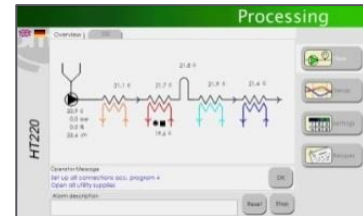
Steam Injection  
Direct

## Smart

The HT220DSI system integrates both Indirect & Direct processes, with or without Homogenizer in 1 system. The automation technology facilitates the operation to control 3 pumps (product pump, homogenizer and DSI outlet-pump) with 1 click using the touch screen.

## Flexible

The HT220 DSI gives complete flexibility. Operators can switch from direct to indirect heat treatment using 5 operating programs installed on the HMI (10" Touch screen). Having 2 independent heat sources for pre heater and final heater, makes the system extremely versatile, but also accurate. The smallest  $\Delta T$  (delta temperature) can be reached between the medium and the product.



## Small

OMVE design guarantees the smallest dead volume (*please ask for the internal volume*), requiring little amount of product to run a test, but also minimizes the space required to install the equipment in the application lab.

## Applications



Dairy and soy



Smoothies



Baby food



Whey based products



Vegetable Drinks



Other applications

## Unique Features

- User friendly
- Low maintenance cost
- Sanitary & Aseptic design
- Easy access for maintenance
- Automatic CIP / SIP
- High level of automation
- Software in 1 or 2 languages

## Modules

- Mixer in feed hopper
- Flow control
- Variable holding tubes
- CIP Pump with high speed flow
- Data logging & Remote assistance from Europe
- Automatic vacuum pump & backpressure valve
- Sterilization link

Heat Treatment

HT



## Specifications

Product code	HT220DSI-20	HT220DSI-50
Product vessel	5 or 10L	10L
Nominal / Process flow rate	20L/h / 10 – 50L/h	50L/h / 30 – 90L/h
CIP flow rate product pump	Up to 160L/h	
CIP pump	Up to 600L/h	Up to 600L/h
Max. Temperature boiler (medium side)	160°C [320°F]	160°C [320°F]
Hot Water (electrical heated)	1x 6kW or 2x 6kW	6kw + 8kW
<b>Tube in tube Heat Exchanger</b>		
Internal diameter	8mm or 10mm [0,3" /0,4"]	8mm or 10mm [0,3" /0,4"]
Viscosity	2500cPs	2000cPs
<b>Direct Steam Injection</b>		
Max particle size ( <i>soft particles</i> )	1mm [0,04"]	1mm [0,04"]
Min pressure flash tank	0,3bar(a) ~70°C [4psi~158°F]	0,3bar(a) ~70°C [4psi~158°F]
Pressure Outlet pump flash tank	10bar(g) [145psi]	10bar(g) [145psi]
Max. Viscosity (in flash tank)	500cPs	500cPs
<b>Homogenizer</b>		
Adjustable flow rate	12-30L/h	20-55L/h
Homogenization pressure	600 bar [8700psi]	400 bar [5800psi]
<b>Dimensions</b>		
HT220DSI	205x95x167cm [80.7x37.4x65.7"]	205x95x185cm [80.7x37.4x72.9"]
<b>Required Utilities</b>		
Electrical	370-400Vac /3ph+N+E /50Hz/ 32A 200-240Vac /3ph+E /60Hz/ 32A	370-400Vac /3ph+N+E /50Hz/ 32A 200-240Vac /3ph+E /60Hz/ 63A
Water	2,5bar(g) 0°C – 20°C [36psi 32°F - 68°F]	
Steam low pressure	2.5 bar(g) [43,5psi] for sterilization	
Steam for DSI	8bar(g) [116psi]	
Compressed air	6 bar(g) [87psi]	

## Complete Integrated Plant at 20L/h

Direct &amp; Indirect processing, fully automated



FS211 Filling System

HT220DS HTST/UHT System +  
HP202 inline HomogenizerSG18  
Steam generator

## 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.