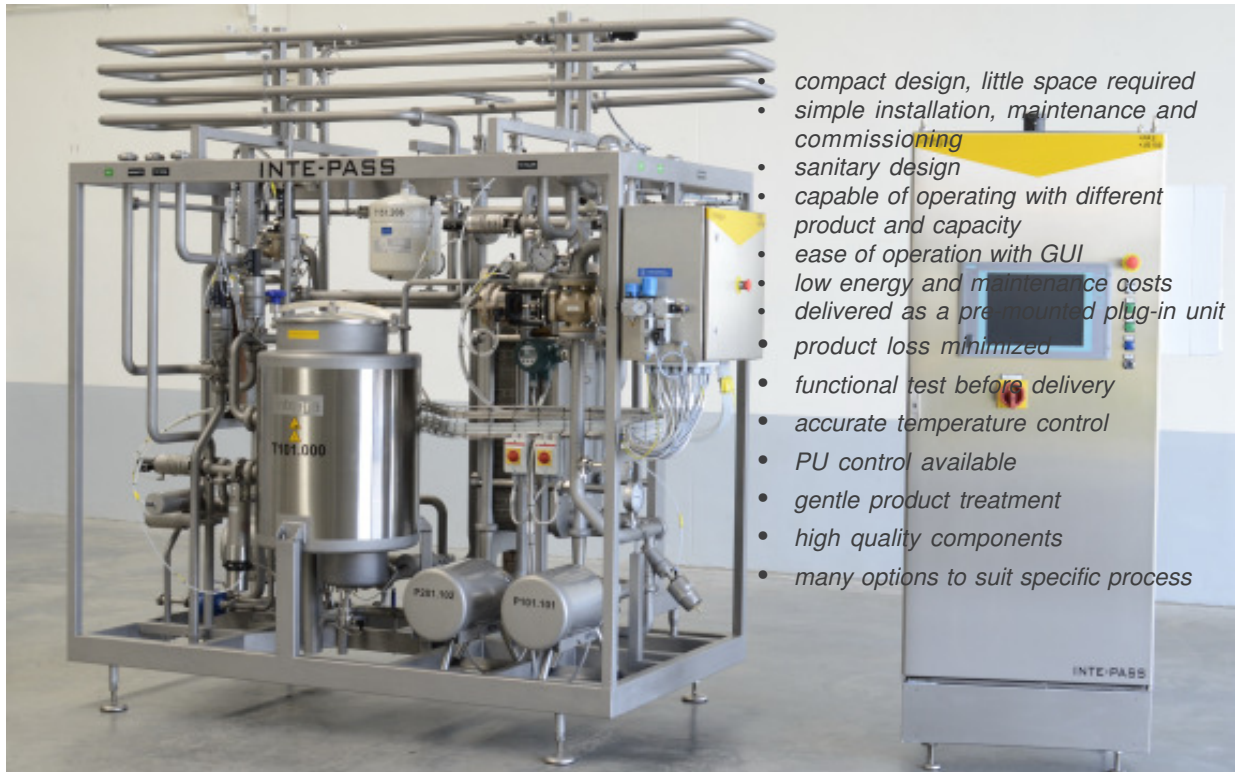


Pasteurizer “INTE-PASS”

“Secure the Product with our Pasteurization Unit”



- compact design, little space required
- simple installation, maintenance and commissioning
- sanitary design
- capable of operating with different product and capacity
- ease of operation with GUI
- low energy and maintenance costs
- delivered as a pre-mounted plug-in unit
- product loss minimized
- functional test before delivery
- accurate temperature control
- PU control available
- gentle product treatment
- high quality components
- many options to suit specific process

Application

The INTE-PASS is a pre-assembled skid mounted pasteurization unit. For pasteurizing the liquid product such as milk, softdrink, juice, tea, syrup, food stuff, etc.

The ability of pasteuriser to assure a safe, finished product hinges on the reliability of the time-temperature-pressure relationships which must prevail whenever the system is in operation.

INTE-PASS pasteuriser options can be adapted to cold filling, hot filling and aseptic filling.

pasteurized regenerator, product can either route to filling or enter the cooler section and is then cooled to lower packaging temperature.

The flow diversion device can also be included in order to prevent improperly processed product from flowing to the fillers or tanks.

When product to product regeneration is employed, the pressure in the pasteurized product passages must, at all times, be higher than the pressure in the raw product passages.

Working Principle

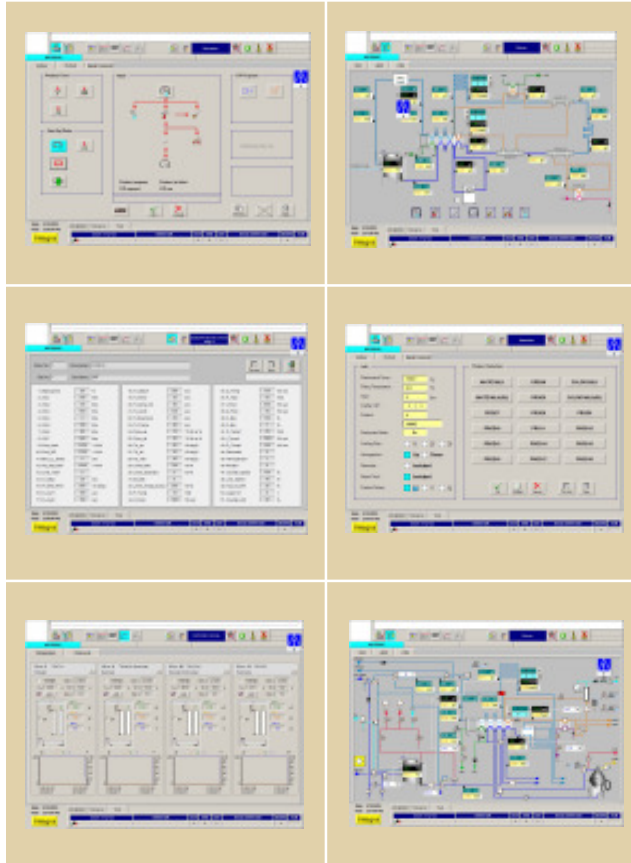
The INTE-PASS can include plate heat exchanger (PHE) or corrugated tube heat exchanger (THE), considered to the product type.

In the heat exchanger the cold unpasteurized product is preheated in the regenerator section by the hot product. The final heating is performed by hot water which in turn is heated by steam through the separate brazed heat exchanger (BHE). The difference in temperature (deltaT) between the hot water and product is less than 2-5 °C. The pasteurized product from the holding tube enters the pasteurized regenerator section where it is pre-cooled by raw product in the raw regenerator. From the

With optional PU control, the temperature setpoint automatically adjusted when the flow rate is changed to maintain constant PU number.

The pasteuriser has the following operation:

- Water Flush
- Sterilization
- Aseptic Water Circulation
- Production
- Product Recirculation
- Aseptic Intermediate Cleaning (AIC)
- Cleaning (CIP)



Pasteurization Monitor and Control

INTEGRA can offer the “INTE-PASS” pasteuriser with different degree of automation (manual, semi-automation, fully automation).

In fully automatic operation, the sequences and measured values are monitored and controlled accurately by programmable logic controller (PLC) with special developed control software giving reliable good and safe product output.

The system has comprehensive functions, such as:

- start / stop sequence
- operation selection
- product / capacity selection
- parameter editing
- auto / manual mode
- setpoints override
- messages logging
- trend curve
- password protection
- etc.

System Information

Sizes and Capacity

Capacity range:
 < 1 m³/h up to 40 m³/h

Pasteurized temperature:
 72 - 140 °C

Filling temperature:
 4 - 95 °C

Regenerative effect:
 Direct 92 % max

Working pressure:
 12 bar max

Technical Data of Equipment in Unit (Basic Type)

- balance tank
- feed pump
- plate heat exchanger
- instrumentation
- set of actuated sanitary valves
- set of service valves
- hot water set
- holding tube
- complete internal piping ready for connection
- stainless steel frame
- control module
- material in contact with product : 316L

Optional Equipment

- deaerator
- homogeniser
- separator
- variable capacity
- chart recorder
- aseptic version
- feed back of valve
- adjustable hold time
- sterilization cooler
- closed loop sterile
- tubular heat exchanger
- CIP dosing unit
- conductivity sensor
- I/O communication to other machines
- air condition for panel
- SCADA system
- manual operate
- flash pasteurization

Control Module

- stainless steel panel
- protection class IP65
- control voltage 24 VDC
- 15" TFT touch screen, 16K colors SIEMENS IPC with Windows OS
- CPU SIEMENS 315-2DP
- digital and analog inputs / outputs
- STEP 7 programming language
- USB printer interface
- Ethernet TCP/IP
- MPI or Profibus DP available
- dimension : 800 x 2000 x 400 mm (W x H x D)

Specifications are subjected to change without notice.



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