

GENERAL DESCRIPTION

Pilot Plant HTST 300 is a continuous cycle plant for processing ice cream mix.

It consists of:

- 2 mixing tanks
- 1 pump for transferring mix to the constant level tank
- 1 homogenizer (metering pump)
- 1 plate heat exchanger
- 1 holding tube
- 1 hot water circulating pump
- 1 low-pressure steam unit
- 2 flow diversion devices
- 1 safety thermal limit recorder
- 1 regenerator differential pressure recorder and control

Each plant requires one chilled water tank according to the production capacity and to the number of ageing vats utilized.

Consult the enclosed instruction manual to operate the chilled water tank.

The HTST plant comes complete with main electric board with control panel.

To operate the HTST plant requires:

A) tap water, which is required for:

- 1) filling hot water unit for pasteurization
- 2) cooling homogenizer's pistons
- 3) washing the plant, and various services.

B) chilled water, which is required for:

- 1) cooling the end stage of plate cooler
- 2) preservation of mix in ageing vats (ageing vats optional)

C) compressed air for homogenizer and pneumatic valves

D) electric power supply

E) Steam for heating the plate pasteurizer.

The complete mix processing cycle includes:

- 1) mix processing in mixing tank no.1 or no.2
- 2) pre-heating of the mix up to 72°C in the regeneration section
- 3) homogenizing up to 120 - 150 Bars
- 4) mix pasteurizing at 80/90°C with hot water in plate heat-exchanger
- 5) mix stop in the holding tube for 25 seconds
- 6) cooling down to + 4/6 °C with chilled water
- 7) transfer of cold mix to ageing vats.