

# *Ice Cream Mixing Plant*

## *MIX HTST*



Create Your Ideas,  
We Will Find Solutions!

MIX HTST is a closed cycle continuous plant for mixing, pasteurisation, homogenisation and cooling of ice cream mix. MIX HTST plants are available with capacities from 300 to 5 000 litres of mix per hour.

The great advantage of HTST system is energy recuperation - tap water (milk) cools down the outgoing mix and is heated up - thus the energy requirements are significantly reduced. Savings are 70 - 72% compared to the systems without recuperation.

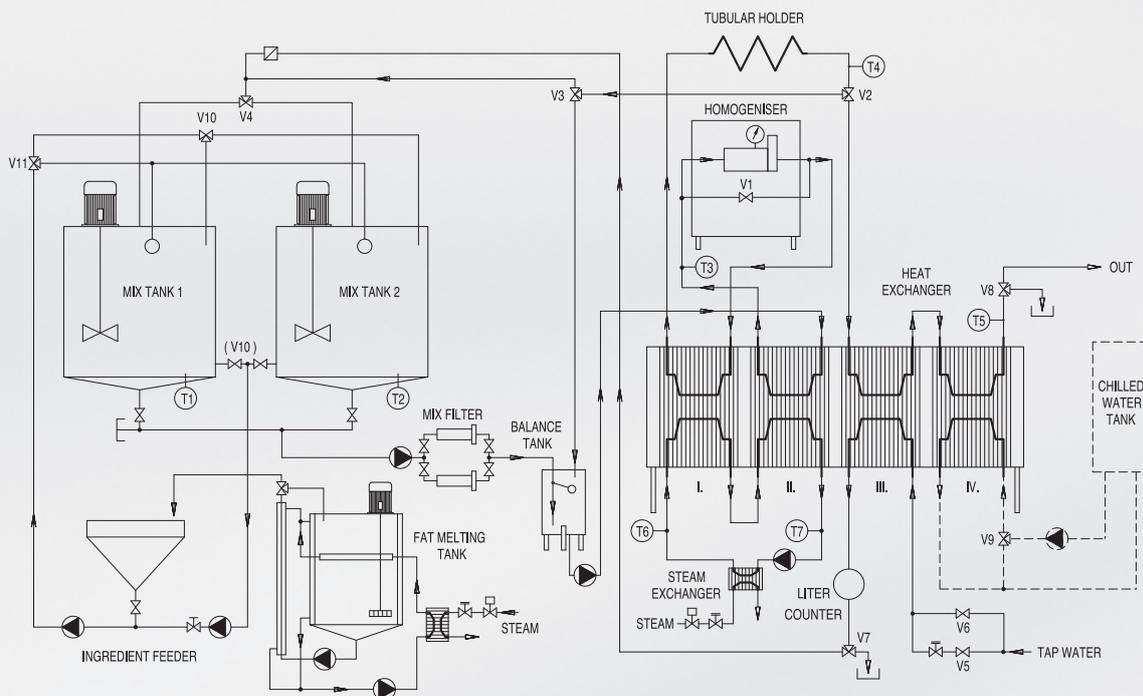
### We offer:

- plants tailored to individual requirements of each client
- components of world leading manufacturers
- wide range of accessories
- low energy costs of the plant
- various levels of automation

### Operation principle:

Mix is processed on the plant in following stages (short description):

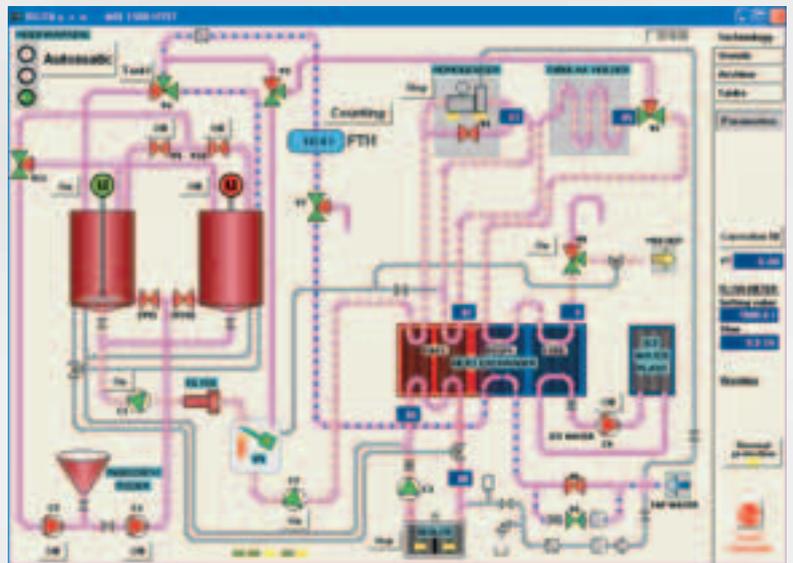
1. Ingredients are mixed in two separate tanks, one at a time, so the continuous production is achieved.
2. Mix is heated up to the pasteurization temperature (85 - 92°C) at the plate heat exchanger.
3. Mix is homogenized at a pressure of 180–250 bar.
4. At the tubular holding unit is the mix kept for about 40 seconds.
5. Mix is pre-cooled down to 20 - 25°C by means of tap water which is pumped to the second tank. This process highly reduces the energy consumption of the plant.
6. Mix is cooled down at the second cooling section of the plate heat exchanger by using the chilled water to 5° C.
7. Mix is pumped to ageing tanks



## Standard design:

The MIX HTST has the compact and hygienic stainless steel design. The space requirements are minimalised by means of optimal layout of the plant. The plant is easy to operate, all parts and components are easy to inspect and maintain. The standard plant consists of:

- Mixing tank (2 pcs), double speed stirrer, temperature indication
- Mix filter
- Centrifugal pump to deliver the mix to the balance tank
- Balance tank with floater
- Centrifugal pump to deliver the mix to the heat exchanger
- Plate heat exchanger, 4 sections
- Homogenizer with pumping pistons, working pressure 180 bar, single stage
- Tubular holding unit
- Control panel with all electricals, temperature display, liter counter display
- Liter counter to measure amount of water going to mixing tank, according to the recipe
- Boiler supply hot water for the pasteurizing section of plate heat exchanger. The hot water can be prepared through electricity / gas or steam
- Centrifugal pump to deliver the hot water to the heat exchanger



Operator interface – color touch screen

## Optional accessories:

The plant can be completed with following accessories:

- High pressure plate exchanger for viscous, special mixes
- Powder feeder for dry ingredients
- Weighing system
- Fat melting tank
- Chilled water tank
- Second homogenizing stage
- PLC control, automation and optimisation of the process
- Visualisation of the process
- Temperature registration

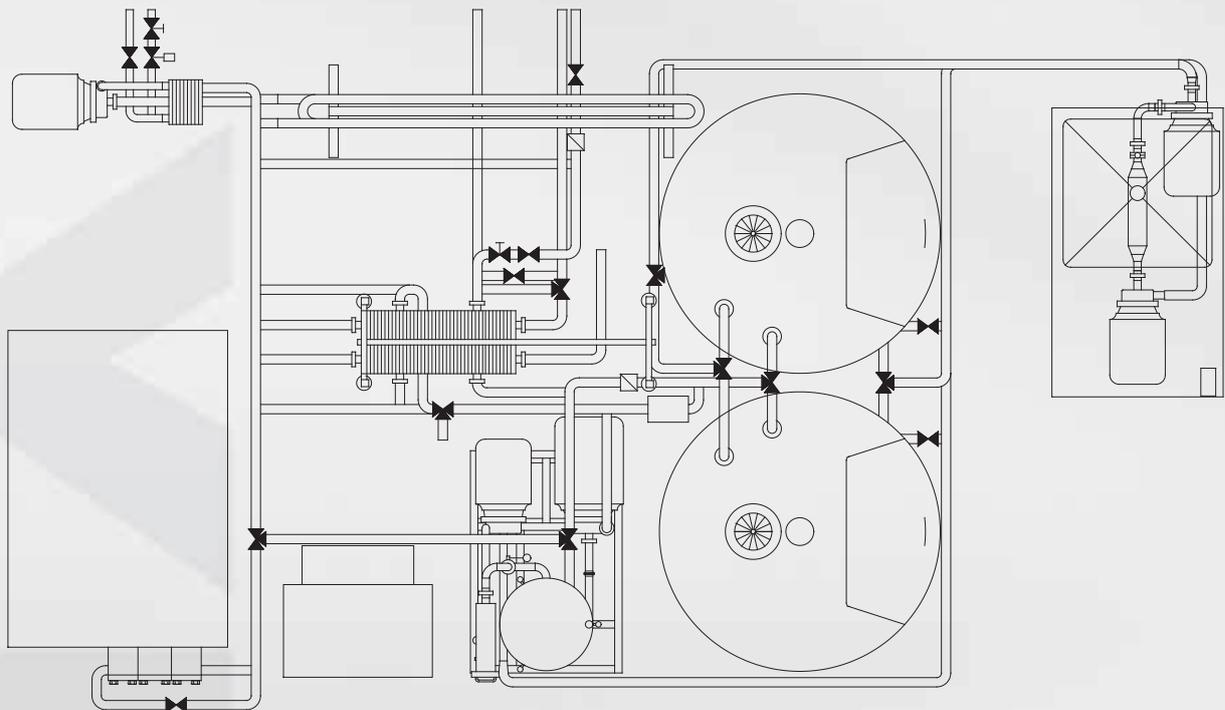


MIX 600 HTST

## Technical Data:

Model	Dimensions	Weight
MIX 300	3600 x 1500 x 1720 mm	1250 kg
MIX 600	4200 x 1500 x 1800 mm	1600 kg
MIX 1200	5300 x 2200 x 2000 mm	2800 kg
MIX 2000	5450 x 2200 x 2300 mm	3600 kg
MIX 3000	6500 x 3000 x 2900 mm	4500 kg
MIX 5000	8200 x 3500 x 2900 mm	5900 kg

Other capacities on request.



VOJTA s.r.o. product technology is under continuous development. Therefore we reserve the right to amend the information given in this brochure without prior notice.



**VOJTA s.r.o.**

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