



PASTEURIZATION

PASTEURIZERS and HEAT EXCHANGERS

What is Pasteurization:

Pasteurization is a process which is basically to heat cold or hot liquids to terminate all pathogens inside. During process, hot and cold liquids do not mix thanks to directing gaskets on plates. Specifications of heating process system to be used entirely depends on product specifications and results which are desired to be obtained. So system is designed according to product inlet-outlet temperatures, operation pressure, acceptable pressure losses within the exchanger, heating capacity and types or quantity of liquids.

Control Panels used in Pasteurization Systems:

For all of our machines, we prefer equipments which have most sensitive control capacity. Panels in which circuits or electrical control equipments are placed are designed water and steam proof. All measurement instruments are carefully chosen from most hygienic and precise ones. There are two options for pasteurization process control systems:

1. PLC system with touch screen: In this system all valves are pneumatic type. Milk process can easily be programmed depending on type of product.

2. Unlike PLC system, manual type valves are used in PID system. Only heating valve type is different: proportional valve. In this system desired temperature can be adjusted and fixed.

All switches inside panel are first class quality. For ease of use mounting of cables and other components inside the panel are made in sequence. All materials are chosen from the one switch high level tolerance.

All softwares are created by **hb grup**

So software infrastructure can produce flexible and exclusive solutions.

Other Equipments:

Balance Tank: Balance tank provides to include product into system initially. Tank sends product to pasteurizer in a proper balance. If product is not pasteurized first time, it returns back to balance tank to be re-processed. Balance tank can also be used as a circulation tool on CIP application before and after pasteurization process.

Pump: Pump transfers product to be pasteurized from balance tank to plate pasteurizer in appropriate quantities. It is resistant to acidic and alkali materials which is used in CIP application. Pump does not require lubrication or cooling process and operates silently without vibration. Certainly pump is made of food grade material.

Fittings Materials:

These materials are made of AISI 304 SS. Materials consist of pipes, records, T pipes which connect all system components to each other. All components are welded by argon gas technique.

Hb grup presents eligible solutions for all different requirements. Depending on product type and desired shelf life customer can choose variable pasteurization methods.

Pasteurization Usage Areas:



DRINKING MILK



CHEESE MILK



BUTTERMILK & YOGHURT



BRINE



CREAM



HONEY & MOLASSES



ICE CREAM MIX



FRUIT JUICE



GLUKOS SYRUP



SODAS



EGG

PASTEURIZER TYPES



PLATE PASTEURIZER



TUBULAR PASTEURIZER



BATCH PASTEURIZER

MACHINERY PASTEURIZER FAMILY

PASTEURIZERS and
HEAT EXCHANGERS

5.000 Lt/H PLATE PASTEURIZER



10.000 Lt/H PLATE PASTEURIZER



15.000 Lt/H PLATE PASTEURIZER



20.000 Lt/H PLATE PASTEURIZER



PLATE BRINE PASTEURIZER



Difference of brining pasteurizer from other plate pasteurizers is type of plate used. For this pasteurizer 316 TI titanium plates are used. 316 TI is resistant to both acid and salt. So life of product increases.



It is a system mostly preferred for small capacity productions. Pasteurizer, homogenizer and seperator's being placed to get her are useful for mounting and for usage.



PASTEURIZATION PLANT

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ELECTRICALLY PASTEURIZER



Electric pasteurizer is also used for mostly little capacity facilities. Electric pasteurizer is designed for companies which do not want make investment for steam energy. Electric resist or heats water and water heats product. It is a compact machine with easy usage.



This type is used for softy ice cream production. Entire system is automatic and is able to save temperature data pf product during process. For a beter visual quality holder can be mounted on machine. At the end of process two phase cooling process is carried out: Normal water, icywater.



PLATE ICE CREAM MIXTURE PASTEURIZER

