

Hot and cold water system

The use of hot and cold water systems and /or hot water modules provide significant benefits in terms of energy efficiency and the lifespan of the process equipment. This also offer improved process control over the direct use of steam as a heating medium. In addition, specific hot and cold water systems for horizontal agitators offer optimal conditions for the highest product quality in foodstuff manufacturing and the preservation of food pieces.



Requirements, functionality

Steam has a high energy content and is insufficiently regulated for the required process control accuracy for the optimal production of fruit preparations, jams, vegetables and sauces. In addition, when steam is used to heat the double jacket and the agitator, it is difficult to prevent adherence of the product. This is difficult to remove during cleaning, and causes ongoing high cleaning cost. In addition, condensate cannot be used for energy recovery, or only at significant expense.

Our hot and cold water system, also known as a hot water module, is fitted with a buffer container (expansion tank), which supplies water to the entire hot water system. A pump is pumping the water of the buffer container through a heat exchanger, where the flow temperature is precisely regulated for the process vessel by means of steam and cold water flow. Once it has heated the process vessel and agitator, the water is returned to the buffer container. The same principle applies to the cooling process, where the system is controlled using mains water, icewater or an existing cooling system.

Advantages of a hot and cold water system

- The hot water/cold water remain in the system. Only the energy difference to the target temperature need be supplied
- More precise process control and surface temperature control enable high product quality and the greatest possible reduction in product adherence and cleaning cost.
- Increased lifespan of the process vessel and agitator thanks to gentler temperature control (no steam hammering), and hence reduced load cycles.

