

UHT Milk Processing

UHT sterilizers are also referred to as 'sterilizers' .

The sterilizers' operation principle involves a centrifugal pump, which preheats the substance in the sterilizers' heat exchanger, made of cold and hot materials. The substance is further heated rapidly, under specific high pressures, to reach the required temperature for sterilization in the high-temperature sterilization barrel. The enzymatic microorganisms are killed in a period of about 3 seconds. After the barrel, the material is cooled to tapping temperatures of under 65° c. If there is a need to raise the tapping temperatures for subsequent processes, this is done by the angle stop valve or bypass circulation. Otherwise, the tapping temperature is dropped by cooling water circulation. The tapping is done by the sterilizer's throttling valve, which sets the material's boiling point above the sterilizer's boiling point at a specific pressure, hence the temperature.

During a normal production cycle, the system is automated to relieve the pump of pressure developed by a spring load to control the flow. During clean cycles and machine sterilization, this valve is to be fully opened.

The circulating storage tank can be used to prepare an acid-base solution and effectively remove scales on the inner wall of the coil. The flow rates can be properly adjusted with the simultaneous use of the stainless steel three-way cocks.

For instance, the sterilization of liquid materials like fresh milk, fruit juice, beverages, popsicles, ice cream slurry, soy sauce, soybean milk, condensed milk, wine, and even other liquid materials, the average operating temperature used is 115-135 °C and the sterilization time is 4-10 seconds, guaranteeing ultra-high temperature instant sterilization.

Used for instantaneous ultra-high temperature sterilization of milk, juice, ice cream, tomato sauce, beer, egg products, and other materials.



Key benefits of UHT processing include a significantly prolonged shelf life, often several months, until the package is opened. It also helps in preserving a substantial portion of the milk's essential nutrients and sensory qualities. The resulting product is convenient for long-term storage and distribution in locations where refrigerated transport and storage are limited, making it a critical component of the global food supply chain.



4.9/5

Customer Rating



ISO 9001

Certified Quality



15+

Industry Awards



500+

Happy Clients



50+

Countries Served



99.5%

Uptime Guarantee

Available Configurations



Plate Type

Enhanced thermal efficiency

Tubular Type

Ideal for particulates



Coil Type

Compact design



Pilot Plant

R&D applications

Our Commitment to Excellence

Innovation First

Leading industry innovation with 50+ patents and continuous R&D investment in next-generation technologies.

Customer Centric

Building long-term partnerships with 99.5% customer satisfaction and comprehensive lifecycle support.

Global Reach

Serving customers in 50+ countries with local support and global expertise in food processing technology.

Sustainable Future

Committed to carbon neutrality by 2030 through energy-efficient designs and sustainable manufacturing.

