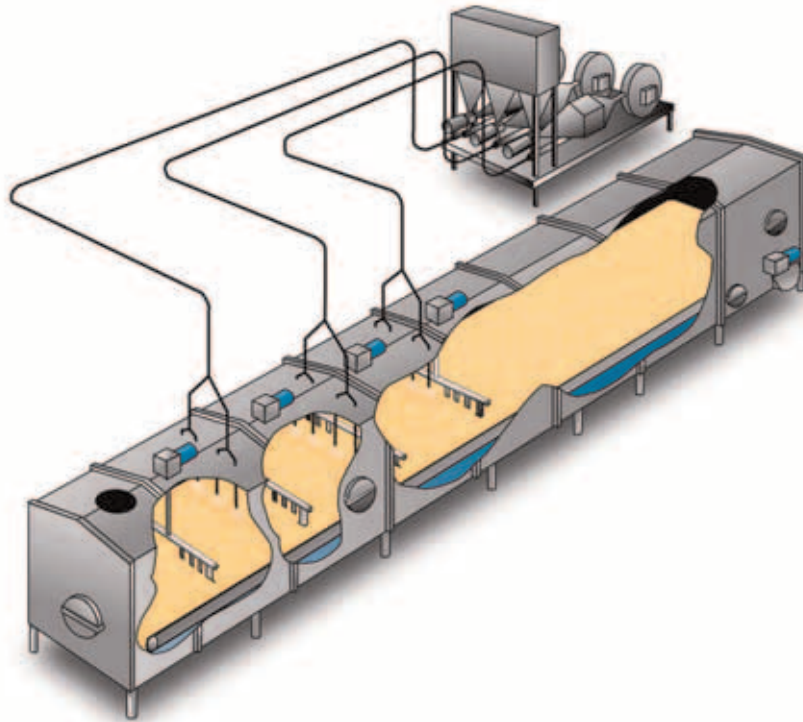




Tetra Scherping™ Salting and Mellowing Conveyor



Application

The Tetra Scherping Salting and Mellowing Conveyor provides the most effective method for achieving and retaining the required amount of salt in the curd. This method of salt application ensures optimum salt retention, unequalled salt uniformity, lower salt usage, and a reduction of high salt whey. This means properly conditioned curd every time.

Working principle

Part of the uniqueness of this system is the use of vertical agitators to stir the curd. Upon entering the salting chamber the cheese curd is deposited directly on the self-tensioning, polypropylene belt where a uniform curd depth is obtained through the use of vertical agitators. As the curd is dispersed, excess whey is allowed to separate freely from the curds. During this time the curd is allowed to “heal” and curd washing can also take place to prevent seaminess. Vertical agitators are

located after each salt applicator to distribute the salt equally from side to side and top to bottom on the curd bed.

The first curd depth sensor/transmitter is positioned in the machine before the first salt application.

After the curd is levelled by the vertical agitators the unit measures the curd depth and determines the amount of salt to be distributed by the series of salt distribution manifolds. These manifolds enter the conveyor through the top of the housing. After the first salt application the curd is stirred to evenly distribute the salt and to allow for whey drainage.

The second and third salt applications are applied by using the same means as the first. This method of salting the curd minimizes salt usage by providing a longer absorption time. It also creates less fines due to the lack of abrasiveness that is common with one salt application. Consistent cheese moistures are another benefit of multiple salt applications.

Salt can be delivered by bag, bulk, or tote, to the remotely located salt hopper for dispensing by the salt metering units. The total amount of salt delivered to the curd by each metering unit is regulated by a weight loss metering unit. Each metering unit operates independently, is regulated by a curd depth sensor, and has its own air line which delivers the salt to the dispensing manifolds.

The ability to vary the salt that is distributed by each applicator is one of the most important features of the Tetra Scherping Salting and Mellowing Conveyor. For example, with three applicators, ten percent could be applied by the first salt distribution manifold, forty percent by the second and fifty percent by the third. Many other configurations are possible to give the operator tremendous flexibility.

With the ability to adjust salt proportions, the timing between applications, and the depth of the curd bed, the operator has the ability to maximize salting efficiency while regulating the amount of salt- whey being generated. This, in combination with the agitators and belt design, result in the

most consistent cheese curd produced by a continuous, automated salting system.

After the final salt application, a vertical agitator gently stirs the salted curd to insure uniform salt distribution and adequate whey drainage. The remainder of the belt provides sufficient curd mellowing time.

The temperature of the curd at discharge can be controlled by an automated, electronically controlled ventilation system.

The Tetra Scherping Salting and Mellowing Conveyor uses a self tensioning, self-tracking, belt consisting of a series of molded polypropylene sections linked together with molded plastic pins. The flat rigid surface of this belt allows for agitation of the cheese without generating fines. The hydrophobic nature of the polypropylene prevents curd from sticking to the belt surface allowing for fast and easy cleaning of the belt.

The belt is driven by polypropylene drive sprockets positioned across the entire width of the belt to ensure even distribution of the load.

Highlights

- Multiple salt applications.
- Optimum salt retention.
- Properly conditioned curd.
- Unequaled salt uniformity.
- Capacity of 12,500–30,000 pounds of curd per hour.
- Dimensions based on specific application ranging from 7–12 feet (2–3.6m) wide and 30–70 feet (9.1–21m) long.
- Type 2205 and 316L 2B finish with internal welds ground smooth and polished.
- Entire exterior bead blasted.