



Technical Brief

TEMPERATURE

The Critical Importance of Temperature Control in Dairy Processing

In the dairy processing industry, temperature control is crucial for pasteurization and heat treatment. These processes require specific temperature monitoring to eliminate harmful bacteria, while preserving the nutritional value and taste of the product. Tel-Tru offers a comprehensive solution for the dairy and food processing industries.

Tel-Tru's sanitary instruments are indispensable for dairy processors who are aiming for optimal temperature control, efficiency, and product quality. We provide state of the art temperature monitoring devices designed to meet and exceed the strict requirements of the Pasteurized Milk Ordinance (PMO) and 3-A Sanitary Standard 74-07. Our products are optimized for compliance with temperature instrument calibration and verification standards, offering high accuracy and traceability to NIST.

Tel-Tru instruments are designed with a variety of temperature measuring applications in mind. They are available in numerous convenient options, including stem lengths and temperature ranges. Configurations include regular threaded connections for coupling with sanitary thermometers or seals, as well as connections with integrated sanitary fittings, providing flexibility for various applications.

With a focus on compliance with industry standards, high accuracy, and versatile configurations, Tel-Tru is the trusted choice for temperature monitoring in dairy and food processing applications. We also offer engineering services to work with you to develop customized temperature monitoring solutions specific to your application. We're proud to be helping companies deliver products that meet the highest standards of excellence, safety, and consumer satisfaction.

Key Considerations:

- **Microbial Safety and Pasteurization:** Accurate temperature management ensures that pasteurization, a process vital for eliminating harmful microorganisms in milk, is both effective and compliant with regulatory standards, safeguarding consumer health.
- **Quality Preservation:** Controlling temperatures during processing prevents undesirable chemical reactions, maintaining the integrity of proteins, lipids, and other key components.
- **Consistency and Reproducibility:** Each dairy processing step, from cheese making to yogurt fermentation, requires tight temperature control for achieving uniformity in product quality.
- **Regulatory Compliance:** Adherence to specified temperature requirements is not only a legal imperative but also a commitment to producing safe and high-quality dairy products.
- **Energy Efficiency:** Efficient temperature control contributes to energy savings, aligning with sustainability goals, and also enhances operational efficiency and cost-effectiveness.
- **Shelf Life Extension:** Proper temperature management during processing and storage minimizes the growth of spoilage microorganisms, extending the period of product freshness and market viability.
- **Equipment Longevity:** Well-maintained temperatures mitigate wear and tear on machinery, reducing maintenance costs and ensuring the reliability of equipment.
- **Customer Satisfaction:** Accurate temperature control guarantees that each batch meets specific quality standards, fostering customer satisfaction and brand loyalty.

In the dairy processing industry, precision temperature control is not merely a technical consideration—it is a cornerstone of ensuring product safety, quality, and compliance with regulatory standards. This technical brief aims to underscore the paramount importance of temperature control throughout various stages of dairy processing.

For more information on instruments related to dairy visit www.teltru.com/category/86/dairy-andcheese



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