

TECHNICAL POSSIBILITIES OF QUALITY IN SPREAD CHEESES PACKING PROCESS ¶

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¶**Abstract:** *In the article we describe the new technical solution of automation of container heating in the packaging line of spread cheeses. The solution has to secure the required temperature of spread cheese in the packaging process. The reason for technical solution of this problem is the fact that the temperature of spread cheese packaging often is not held in practice. It is known from quality of spread cheeses that for health security of spread cheese the temperature of spread cheese at packaging must not fall under 75 °C.*

INTRODUCTION

The contemporary trend of production and distribution of sale food-stuffs on market of consumers leads us unceasingly to new technical solutions of this trend security. We can state generally that products from milk are very bent on a quick lowering of quality and their health safety. Milk spread cheeses are not an exception. The temperature at production of spread cheeses secure the sufficient quality of the product (95 °C), but it is not so unambiguous in the process of their packaging. The temperature of the product goes down intensely here form reason of large time interval between melting operation that works discontinuously and the packaging process. For securing quality in the packaging process of spread cheeses is required that the temperature of spread cheese does not down under 75 °C. For securing temperature of cheese in packaging process we wanted to propose the technical solution of the given problem.

MATERIAL AND METHODIC OF WORK

We can characterize spread cheeses production process as discontinuous. The cheese production proceeds in discontinuous melting operation, where after adding all ingredient and heating mixture on the temperature 95 °C cheese is let out into container in melting operation. From where cheese in drawn into a mobile carriage. The mobile storage carriage serves on

dosing cheese into individual containers of packaging line spread cheeses. The certain time interval passes from letting out cheese of melting operation up to packaging cheese into aluminum foil. During it heating or conserving temperature of cheese from form melting operation is not secured.

We realized measurement of temperature in process of spread cheese packaging in work conditions. We followed at measurement the spread cheese Labuznik. The cheese temperature was measured through induction thermometer in time intervals. The temperature of cheese in packaging process more in the interval from 60 up to 65 °C.

DESIGN OF TECHNICAL SOLUTION OF LINE CONTAINER

The part of the line Kustner for spread cheese packaging is represented on fig. 1. It is the container of the packaging line spread cheese, the vessel with a conic shape. It is equipped with stirrer for mixing spread cheese inside and it is covered with a lid for preventing penetrating impurities from space.

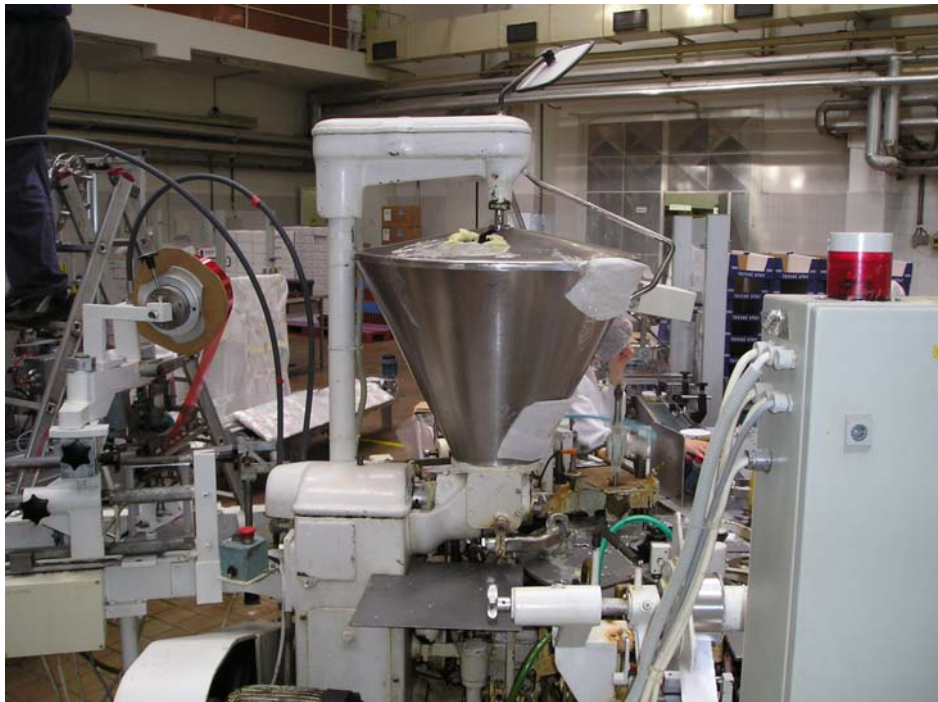


Fig. 1 The container of the packaging line Kustner for spread cheese

The proposed technical solution consist form new construction of the line container on spread cheese packaging. Its scheme is on fig. 2. Double covering of the container secures by

means hot water heating spread cheese in the line container on the temperature of packaging cheese.

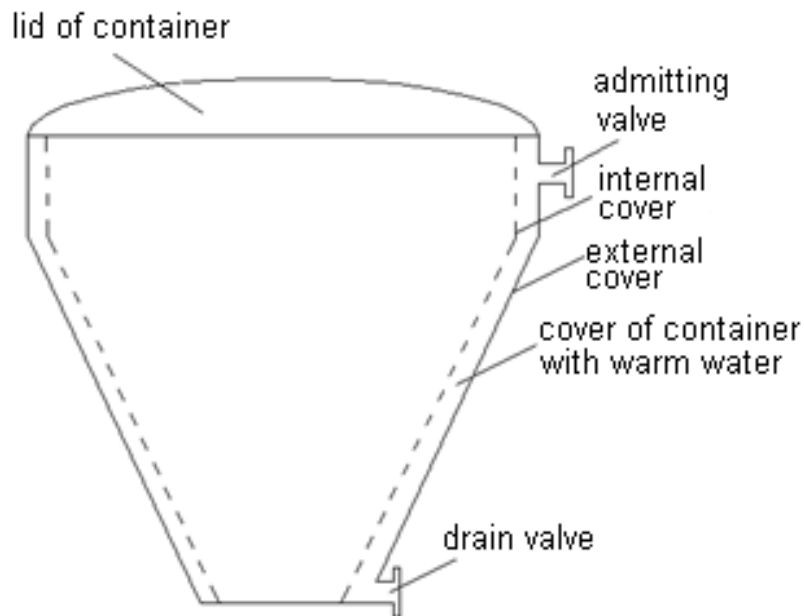


Fig. 2 Scheme of new line container

In the line container in space in front of cheese admittance into dosing machinery temperature sensor will be situated. It controls through regulator valve of opening and closing inflow of hot water. The temperature sensor in container is adjusted so that if the temperature of spread cheese in the packaging line container sinks under 75 °C the sent signal opens the valve on hot water supply in front of container that begins to heat content of container. After crossing the temperature in spread cheese the sensor sends the further signal on the valve that closes hot water supply into container. As follows hot water begins to circulate in the base circuit only. Some packaging lines on spread cheese can be connected on the base circuit.

CONCLUSION

The packaging process belongs between final operations that are worked in every technological chain. Automation of individual packaging process must not influence negatively on physical – chemical properties of produced spread cheese. Every hit into these properties except the determined interval lowers quality of resulted product and at the same time affects the health safety of the product. New technical solution of securing spread cheese

constant temperature in process of its packaging contributes to stable securing quality of the resulted product.

Acknowledgment

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