




Krohne

- Industry: Chocolate
 - Product: Flow and Level instruments
 - Value Proposition: Precises flow, temperature and pressure measurement despite varying conditions
 - # 1203
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KROHNE recommended using the [OPTIWAVE 7500 C](#). Six units of the 80 GHz FMCW radar level transmitter with PEEK Lens antenna were supplied. The 80 GHz technology allows the antenna (DN 25) and the process connection to be small. Upon customer request, the radar level devices were provided with G1 thread and subsequently installed via hygienic Tri-Clamp connection manufactured by the food company itself. If it had been required for this application, KROHNE would have been able to deliver radar level devices already equipped with any hygienic connections.

The OPTIWAVE 7500 enables reliable measurement independent of process conditions like temperature, pressure, density or viscosity. It is particularly suitable for liquid applications in small tanks with agitators. Due to its empty spectrum function, false reflections caused by those tank internals are eliminated right away, preventing failed measurements.

The level of each tank is monitored continuously. The readings are transferred to the control room of the plant. Whenever the chocolate level falls below a certain threshold, the tanks are replenished by the storage tanks.

A high-quality product often means a challenging production process. Manufacturers of chocolate and cocoa products have special requirements, starting with the input logistics through to the measurement accurate to the gram.

KROHNE has a dedicated Global Industry Division which accepts these challenges and offers individual measurement solutions.

In the chocolate manufacturing process, achieving high quality, safety and efficiency is the priority: this sets highly challenging demands on the measurement technologies used. Please accept our invitation to meet in person, or online, to discuss your process improvement potential. Let us help you enable the evolution of your manufacturing process with our industry and application know-how and high-quality products.

One of the biggest challenges in the manufacture of chocolate, ice cream and other sweets and cocoa products is to increase efficiency and to lower costs without compromising the texture of the final product. Besides precise flow, pressure, temperature and analytical instruments, KROHNE can supply units with direct heat tracing of the measurement tube.

Liquids with a solids content or entrained gas can be measured precisely, even despite high viscosity, for example with cacao butter, changes in viscosity, or where there are sensitive temperature conditions. Modern technologies face challenges like the deficits of two-phase flow conditions, revealing big potential for process optimization and reduction of losses. Coriolis flowmeters with EGM™ entrained gas management maintain operation and high repeatability of measurements – despite the presence of fibers, solids or air entrainment in the slurry, dough or any other kind of mash. Mass flow and direct density measurement of aerated products is already possible in the mixed stage.