

Food & Beverage

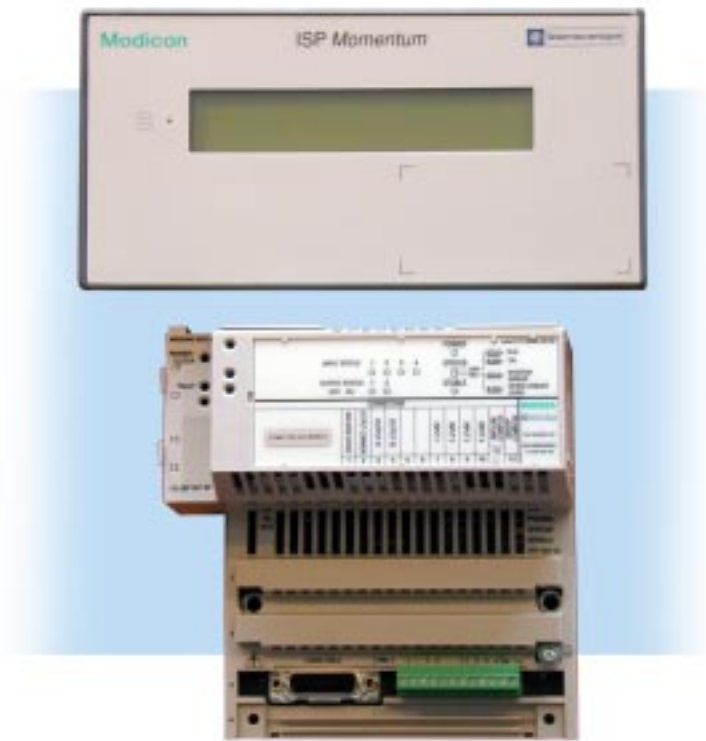


United States

Momentum weighing module streamlines ice cream production

Introduction

WCB manufactures OEM equipment used in the production and packaging of ice cream including, freezers, extruded novelty systems, large inclusions novelty systems, 3D ice cream systems and molded stick novelty systems. The Company has facilities in Italy and Denmark as well as multiple locations in the United States



Application

WCB Ice Cream uses this application for their ice cream ingredient feeder. As the ice cream flows from the freezer through a pipe to the packaging machines, the ingredient feeder adds ingredients such as nuts, berries, chips and cookies.

Merlin Gerin
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WCB Ice Cream High Capacity Ingredient Feeder

Application (Cont.)

The feeder adds the ingredients to the flow of ice cream. The method for adding the ingredients is a loss-in-weight application. A Schneider Electric Momentum weigh scale module performs this task. The rate at which the ingredients are added must vary with the “loss in weight” of the ingredient bin and the flow rate at which the ice cream moves through the pipe.

Objective

WCB Ice Cream had the following objectives for this project:

- A flexible solution that can be implemented with PC or PLC based control
- Improvements in accuracy.
- On the fly ingredient calibration.
- More user friendly controls.
- A solution that cost less.
- One Stop Shopping.

Solution

The Schneider Electric solution includes a TELEMECANIQUE Altivar 28 drive, Momentum weigh scale module, Momentum I/O, Magelis iPC and Entivity Live as the PC control software and HMI. Schneider Electric also provided panel building services that allowed WCB to order complete control panels (which includes the mounting and wiring of the drives, I/O, transformers and other miscellaneous devices) under a single part number.

Benefits

The single point of accountability simplified the interface for the customer and dramatically reduced lead times that are essential for this fast growing OEM market.

Calibration and tuning of the machine are no longer complicated procedures! The weighing input given by the Momentum weighing module is so accurate that there is no need for unnecessary filtering in the control code as was the case with the previous system.

The Schneider Electric solution achieved the objectives of accuracy put forth by WCB. It defines new quality standards in the ice cream processing market.