

Industry: Food & Drink

Products Used: Modular PLCs /// Networks

Mitsubishi PLCs provide food processing solution

Any process involving food manufacture has many legal obligations to consider, and when Mitsubishi systems integrator Advanced Control Systems (ACS) Ltd were contracted by Braby, part of the Kernutec Group, to supply a control system for a food additives manufacturer, these were key considerations to the system design.



Braby asked ACS to provide a system that would control material storage, handling, blending, batching and finished product packaging to food industry standards. The design had to take account of the manufacturer's legal obligation to maintain correct formulations of finished product, track and trace ingredients and avoid any chance of contamination by foreign bodies.

In addition to the stock level and movement controls, the system installed by ACS provides valuable management information. Production data, alarm states and plant utilisation are all recorded and reported. The plant utilisation data is also used to schedule preventative maintenance to minimise production down time.

Eddie Manktelow, a director of ACS says, "Food manufacturing and processing is becoming an increasingly demanding market. The quality and cost effectiveness of Mitsubishi control products enables us to provide exactly what the industry needs."

The automation system controls a production facility of seven mixing vessels with five pneumatic transfer lines feeding the bulk ingredients from the silos to each of the mixers. As part of production forward planning, the system issues a printout of the bagged ingredients that need to be moved to the bag tip stations at each mixer, covering details of recipes for up to 30 mixer runs.

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Eddie Manktelow
Advanced Control Systems

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ACS used a Mitsubishi A3A high speed processor that is networked to seven A1S PLCs to control the 700 digital and 24 analogue signals used on the diverters, slides, batch weighing and more than 40 motors in the process, with communication to the supervisory and production office computers via AJ71UC24 modules. The supervisory computer, production office PC, a bar code labelling PC and seven plant floor operator panels are also networked using industrial TCP/IP Ethernet network.

Application story first released February 1998 by Mitsubishi Electric UK