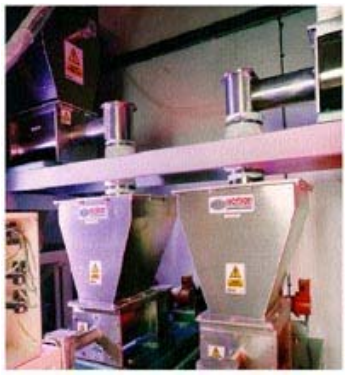
# CASE HISTORY

## *ACRISON MODEL 105 AND LOSS-IN-WEIGHT FEEDERS INCREASE ACCURACY AT FLOUR MILL*

***Acrison had recently commissioned two loss in weight feeders and two volumetric feeders on the self raising flour line at millers, W Nelstrop & Company Ltd.***

The remotely controlled new feeders, part of an ongoing investment program, have increased the efficiency of the self-raising flour line and improved the control of the recipe. They have also reduced manpower costs and made part of the existing production line redundant, resulting in an energy saving.

Self-raising flour includes bicarbonate of soda and mono calcium phosphate combined with the milled flour. In the past, these were added volumetrically, but when the bulk density of the flour changed (as it inevitably does), the ingredients' flowrate needed to be manually altered too. In order to maintain quality and consistency, Nelstrop's batch-tested the flour every hour to ensure the right proportion of ingredients were used - but of course this meant that SR flour could not be produced when the quality control lab was closed.



Acrison won the contract to supply 4 feeders on a decision based on a competitive price and a reputation for excellent service.

The system consists of two Acrison Model 405-105 loss-in-weight feeders installed below two Acrison Model 105 volumetric refill feeders with level probes.

The sodium bicarbonate (NaHCO3) and mcp are blown into two large storage hoppers on the floor above the refill hoppers. About 10 times per hour, the refill hoppers are refilled after rapidly discharging into the high accuracy loss-in-weight feeders.

The feeders are remotely controlled via two MD-II-2000 controllers (located in the main mill control room), which operate in conjunction with an existing bulk flour weighing system. The Acrison controllers receive an analog input signal of flour mass flow, and provide individually proportioned metering control for the continuous feeding of additive ingredients, relative to the throughput of the flour from the mill.

While these MD-II-2000 controllers are acting as slaves to the main flour metering system, each features a comprehensive LCD graphics display, including all main feeder parameters, a real-time accuracy graph and a feeder icon, so that the operators can view the feeder status at a glance.

This system has reduced product handling as flour and additives can be mixed directly after milling thus eliminating the need for additional bulk flour storage and separate off-line mixing.

Conrad Syers, technical director of Nelstrops said 'we now have a far more efficient way to produce the SR flour, and improved control of the recipe. Although the feeders have been installed only a few months, we are optimistic that they will ultimately save us money, because the computer controlled 'slave' set up means that we have no wastage of ingredients.'

'The Acrison feeders exceeded our expectations'.

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