



PROCESS INSTRUMENTATION

## **Siemens BW500 integrators**

replace competitor's weighfeeder controllers

Fully integrated monitoring and control with a single device

[usa.siemens.com/weighing](http://usa.siemens.com/weighing)

**SIEMENS**

## Situation

A large cement plant on the US West Coast uses weighfeeders in their cement-making process to mix certain percentages of different ingredients. They use various brands of weighfeeders, including several Siemens units.

The company relies on the output of the weighfeeders' controllers to speed up or slow down that particular weighfeeder to get the correct mix. The control room, which uses Siemens SIMATIC PCS 7 and S7 controls, monitors all feeders and can set the motor speeds that control the actual speed of the feeders. In a typical mill at this plant, there may be up to 12 weighfeeders running at the same time.

## Challenge

The company's operators had to learn several different instruments and be able to remember how to calibrate and troubleshoot multiple controllers. Many of these controllers were old and could not be repaired. The operators were dissatisfied with the lack of support they were receiving from the competitor, and the display on those older controllers was very hard to see. Many of them also had bad keypads. Because the operators could not easily calibrate the competitive feeders, the company was losing expensive product.

## Solution

The local Siemens representative convinced the customer to try the Siemens BW500 integrator as a standard controller for most of their different weighfeeders. Since then, this customer has upgraded many of the controllers on their weighfeeders (even the competitor's models) to the BW500 integrator. Recently, the company successfully integrated a competitor's feeder, which uses an LVDT, with a BW500 unit using an LVDT conditioner card.

The Siemens BW500 integrator works with most belt scales and weighfeeders with up to four strain gauge load cells. Its patented load cell balance function eliminates errors caused by off-center loading. The PID function may be used for rate control on shearing weighfeeders where belt loading is constant, and can also control pre-feeding devices.

The BW500 integrator's built-in PID controller can be used for additives blending when multiple weighfeeder systems are operated in tandem. Batch control and alarm functions are also provided. Optional Smart-Linx™ modules provide direct digital connections to many popular industrial communication buses.

## Benefits

- Local support and technical knowledge
- Time savings – no need to learn three different weighfeeder controllers
- Cost savings – can be used with competitors' weighfeeders at the plant
- Improved process reliability – unique product features such as the ability to add a Smart-Linx card to enable the use of PROFIBUS to communicate with the Siemens control system



- Convenience – the BW500 is a smaller-size, state-of-the art integrator that can fit inside the housing of the older controller so that it is protected from the weather and harsh, dusty environments. The customer did not need to upgrade the actual weighfeeders, but still has newer and better controllers.

## Important features

- Automatic zero and electronic span calibration
- Alarms for rate, load, speed and diagnostic errors
- Comprehensive weighfeeder control functions
- Dual PID control and online calibration with optional analog I/O card
- Differential speed detection with second speed sensor
- Back-lit, menu-driven display
- Built-in batch controller
- Programmable analog output
- Two adjustable pulsed outputs
- Suitable for belt scale custody approval
- NTEP approved

## Legal Manufacturer

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