

The Siemens logo is displayed in a bold, teal-colored, sans-serif font. It is positioned in the upper left corner of the image, partially overlapping the industrial machinery. The background of the entire top section is a photograph of a large industrial machine, likely a weighfeeder, with a large, white, powdery substance being processed or discharged from it. The machine has various components, including a large cylindrical hopper and a discharge chute, with some mechanical parts visible on the left and right sides.

PROCESS INSTRUMENTATION

Weighfeeders combine measurement precision with durability

www.usa.siemens.com/weighing



NOPA A/S, founded in 1964, is headquartered in Hobro, Denmark. The company develops, produces, and sells cleaning products including detergents used in clothing and textile laundering, dishwashing, and personal care. NOPA is northern Europe's largest private label manufacturer and has production at three factories in Jutland, Denmark.

Challenge

When producing washing powder, ingredients must be measured exactly. Not only do customers want a better overview of what their products contain, but authorities demand companies prove that the contents of their products are similar to the list of ingredients on the packaging.

NOPA therefore must ensure dosage accuracy of the various detergents it produces.

NOPA required a heavy-duty weighfeeder that could handle continuous material flow, from 500 kilograms to six tons per hour, with a typical demand of two to three tons every hour.

If the weighfeeder's belt breaks or is damaged in some way, a switch automatically stops production so operators can fix or replace the belt. This can be a time-consuming process, so NOPA decided to upgrade its old weighfeeders to reduce maintenance and to ensure that materials were always measured according to specification.





Installing and testing SITRANS WW200 was a simple process. NOPA's operators have been pleased with the weighfeeder's reduced maintenance requirements.

Solution

NOPA purchased its first SITRANS WW200 weighfeeder from Siemens after thoroughly studying the market. Although the company was the first in Denmark to buy a SITRANS WW200 weighfeeder, it was not afraid to take a chance on Siemens.

Delivery from Canada took about eight weeks, and once the weighfeeder arrived, operators simply connected and tested it – with no installation problems at all! SITRANS WW200 precisely measures the powdered ingredients in the quantities needed for NOPA's wide variety of products.

The SITRANS WW200 weighfeeder features a $\pm 0.5\%$ accuracy in an operating range from 10% to maximum capacity. The weighfeeder's design is cantilevered to allow for quick and easy belt changes when required.

The unique frame design does not have any idlers or rollers, but uses vertically supported flat bars to support the belt load. These flat bars provide a strong, stable design and also make cleaning the underside of the belt during operation much easier. Of course, without any rollers there is also very little maintenance required on the SITRANS WW200. NOPA also added an automated greasing line to each of the bearings on the pulleys so that operations can continue even during routine maintenance.

The weighfeeders are connected to SIWAREX FTC weighing modules, which are fully integrated into the Siemens SIMATIC PLC that controls the plant's operations. The control room can operate and monitor each of the feeders individually as well as change recipe set points based on the product requirements.



SIWAREX FTC weighing modules provide fast, continuous monitoring and control delivered directly to NOPA's control room.

SIWAREX FTC integrates easily into NOPA's automation system and continuously monitors process values such as belt load, flowrate, and belt speed. SIWAREX FTC comes already factory-calibrated, so operators had no challenge installing these weighing modules.

Benefits

After its positive experience with Siemens weighing technology, NOPA's management decided to replace a total of six older models with SITRANS WW200 weighfeeders.

"The SITRANS WW200 fully lives up to our expectations," states John Ebdrup, Production Manager. SITRANS WW200 ensures that NOPA's detergents are mixed in the proper proportions, keeping ingredients continuously moving through the facility, from inventory silos to the final packaging process.

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