

# Lantmännen Cerealia A/S, Vejle, Denmark.

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future.



Lantmännen Cerealia A/S, Vejle, Denmark, new mill project.

In Vejle in Denmark, Buhler has expanded the Lantmännen Group's existing site into one of Europe's largest and most up-to-date flour mills. The new Lantmännen mill is the first large-scale facility of its kind ever to be completely automated on the basis of the new Buhler **WinCoS.r2** automation system.

The new mill of the Danish Lantmännen affiliate Lantmännen Cerealia in Vejle is acknowledged as one of Europe's most advanced grain milling plants. It was started up in the summer of 2008.

The Buhler Grain Milling business unit constructed a complete processing plant equipped with cutting-edge technology and including two flour mills with grinding capacities of 240 t/24 h and 480 t/24h plus a rye mill with a processing capacity of 180 t/24h. In addition, a new flour silo including a bulk outloading section was installed.

## Facts and figures

### Hardware

- 7 PLCs
- 242 frequency converters
- 24 operator terminals
- > 1140 motors
- > 115 m control cabinets
- > 8700 IOs

### Software

- WinCoS.r2**
- Product tracing
- Energy monitoring
- Maintenance management
- Navigation system
- Online quality data
- ERP integration

# WinCoS.r2 – the new director from Buhler.



The control centre, state-of-the-art technology.

## Fully automated

The key requirement defined for the new plant was that it should allow fully automatic operation on the basis of the latest industrial grain processing methods. In addition, plant operators were to be offered maximum guidance and ease of operation in running the plant in order to ensure a consistently high product quality and to essentially rule out operating errors. The entire concept was established in close cooperation with the customer on the basis of the new **WinCoS.r2** process automation system.

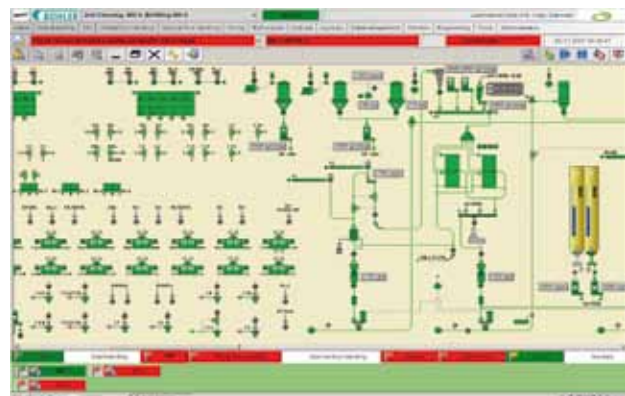
## Smart process fine-tuning

The new Buhler **WinCoS.r2** process automation system offers Lantmännen Cerealia A/S numerous advantages. For example, the navigation system searches for the “right” path for the products through the plant in terms of energy consumption and/or capacity. The system thereby minimizes the required operator inputs, prevents errors and optimizes both the plant capacity utilization and its energy consumption.

**WinCoS.r2** also creates an energy report for each production job, which provides information on the energy consumption per kilogram of product made. Finally, the power consumed by each motor throughout the plant is logged. These data are used by the early maintenance warning system and allow a transparent energy balance to be obtained.

**WinCoS.r2** additionally carries out quality-related monitoring and management functions for a large number of different products. This increases the flexibility of the

plant. So-called “product interlocking” prevents unintended product cross-contamination. After the production process, the system fully automatically stores the finished products and monitors them in the bins. Complete traceability, automatic recipe management and control loops for ash and gluten ensure an optimal consistency and reproducibility of the product quality. All the end products are always made in the identical quality. All the data – including those from the laboratory – are completely recorded, ensuring full and permanent traceability and detailed analyses. Finally, the new flour milling facility of Lantmännen Cerealia boasts a multimedia information centre which automatically provides information in case of irregularities via SMS or email.



WinCoS.r2, clear and easy to operate.