

M-real Paper Mill Relies on Honeywell for Drives Control Integration and Automation Upgrade



“The attention to detail of the M-real and Honeywell teams was superb, reducing the business risk to an absolute minimum.”

Mick Jacobs, Projects Manager, M-real, Sittingbourne

Benefits

Honeywell implemented a total automation system upgrade and drives control integration for M-real's paper mill in Sittingbourne, U.K. It included a complete control system upgrade to Honeywell's Experion[®] Process Knowledge System (PKS) for M-real's off machine coater 2, stock preparation and paper machines 15 and 16. The project resulted in the following benefits:

- Single system to control process and drives
- Less downtime
- Reduced maintenance costs
- Single window
- Operator acceptance
- On-time project delivery

Background

M-real is one of Europe's leading producers of fine paper and paperboard for printing, offices, publishing and consumer packaging. The company has 26 production units across nine European countries and a worldwide sales network covering over 70 countries. M-real generated a turnover of 5.2 billion euros in 2005.

Challenge

M-real was looking for new ways to improve process performance and operational efficiency at its Sittingbourne paper mill. An aging automation control system limited the mill's ability to reduce production downtime and maintenance costs to optimize performance.



M-real's Sittingbourne paper mill upgraded to Experion for a single system to control its process and drives

The installation and commissioning of a new process control system and drives integration had to be completed during a very short shutdown period. This required detailed planning and preparation, and seamless cooperation during the whole project.

Solution

After an analysis of alternatives, M-real selected Honeywell to update its automation system and integrate drives control. Experion PKS was installed at the mill along with an advanced drive control solution.

The system upgrade to Experion PKS provides the mill with one single automation platform, which is capable of implementing drive control in the same system as process, machinery and supervisory controls. In the past, multiple systems had to be linked together to achieve this capability. With Honeywell's Experion system, the paper mill now has a single system from a single solution supplier.

Off Machine Coater 2

Before the final drive control solution could be implemented, 57 drives were replaced over a three-year period, during which a maximum of three individual drives were upgraded per month. The redundant drives were removed but the drive cubicles were retained. The new drives were installed, connected and commissioned during planned maintenance shutdowns. In November 2005 the preparatory work to allow the replacement of the old system was completed. At the Christmas shutdown of the mill, Honeywell engineers successfully commissioned the Experion control system. The machine was given good paper to run in January 2006 and the sheet fed through the coater dry the first time.

“The tension controls worked well to stabilize the sheet and the coating heads were put on. The speed was increased to 500 meters and then the mat-on-line calenders were closed,” said Mick Jacobs, Projects Manager, M-real. The sheet remained on and the coater went into production. “This was a huge achievement for all involved, with only minor fine-tuning to the splices being required.”

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More Information

For more information on Experion, visit www.honeywell.com/ps, or contact your Honeywell account manager.

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Stock Preparation, PM15 and PM16

The installations were made over a two-year period to prevent any interruptions to mill production. By February 2006 preparations were completed to make the final system shift. The old Honeywell system's I/O was disconnected from the system, the new communication cards were installed and a few hours later the Experion system was live. Both paper machines 15 and 16 and stock preparation were ready for restart the same day.