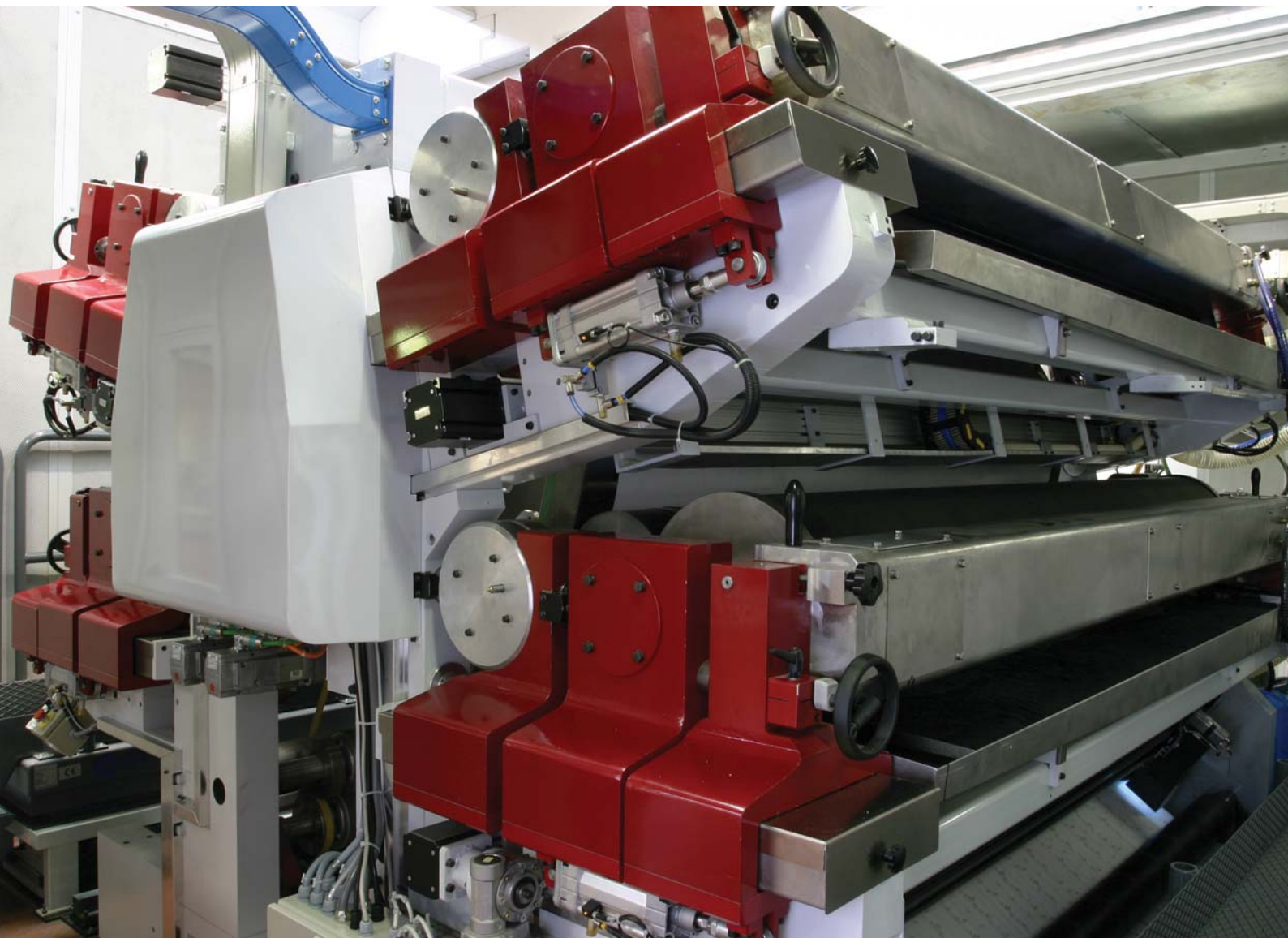


FUTURA

High-technology rolls



The rapid increase in the use of kitchen towel, regardless of global economic crises, has created an ever growing market for this product. Customer tastes are, however, susceptible to change, and manufacturers must ensure that their production lines are ever more efficient, while also being able to quickly alter product specs in response to market trends.

Constant innovation and expertise are what make Futura, the tissue converting-lines company from Lucca, Italy, stand out from the crowd. Despite being relative newcomers to the field, the Futura team has shown they have the skills to bring major innovations to the market, installing over 40 converting lines around the world during the last five years.

Today, the converting process for kitchen towel is frequently based on high performance lines and starts with the unwinding of the parent reels. The sheets of paper are then layered and embossed to increase absorbency, printed if more creative products are required, perforated to help tearing of individual sheets, re-wound and tail sealed into logs and then finally cut to obtain the finished product. This seemingly simple process becomes significantly more complicated when, to maximise productivity, the tissue mother reels run out after 20 minutes

TASK

Kitchen towel is used in most households, and end users are attracted by new and original products.

CHALLENGES

Looking to increase productivity, an industry-leading company asked Futura to build, in just eight months, a line capable of producing one roll a second, with the paper moving at 700 metres a minute.

SOLUTION

The Logix platform uses the most advanced motion control technology, integrated within the platform itself thanks to revolutionary PowerFlex 70 drives, which can control all of the axes involved.

RESULTS

Integrated Architecture from Rockwell Automation allowed the entire production line to be built extremely quickly, enabling the customer to start production before its competitors.

processes that inspired the use of a ControlLogix PLC, specifically designed to enhance these types of communication. Moreover, the Logix platform uses the most advanced motion control technology, integrated within the platform itself using revolutionary PowerFlex 70 drives, which can control all of the axes involved. An Allen-Bradley safety PLC was installed within the line and integrated into the GuardMaster solutions; this protects workers and prevents any malfunctions from endangering the entire production line.

The entire infrastructure is based on Ethernet protocol. This approach was preferred because Rockwell Automation was one of the first companies in the world to pioneer the use of this protocol in the field of industrial automation. As Giovachino Giurlani, technical director at Futura, explains: "Because these converting lines must have a long life-span, we decided to offer a truly future-proof network, giving our customer a production line that can operate for many years, without the need for further modifications and upgrades."

With maximum productivity in mind, the whole line was managed by operator interfaces from the Rockwell Automation PanelView family. By using these touch-screen solutions, which allow operators to view and set all the operating parameters for the entire line, changes can be made in a matter of minutes, and it is always possible to view the status of every single part of the line.

and the paper moves at a speed of 700 mt/min, producing up to one log per second or up 1000 kitchen towels per minute.

These are the specifications—requested by a market leader—to which Futura built a state-of-the-art production line in only eight months. The same client had also asked for a high degree of flexibility in order to quickly switch from one format to another, as well as the use of electronics made by Rockwell Automation, chosen for the reliability and innovation of its solutions. This was a real achievement, especially given that the time frame for planning, development and production was reduced to just eight months and that Futura's engineers had been asked to only use Rockwell Automation electronics, already valued by the factory and renowned for their innovation.

It was precisely the need to co-ordinate all of these



The Ethernet-based control network meets current and future requirements