

AUTOMATION

case study

Automation delivers 75% energy savings for extrusion application

Tech Folien, based in Liverpool, UK, is a specialist producer of polycarbonate, polypropylene and other co-extruded blown films for industries such as packaging, automotive and construction. Tech Folien is owned by the MCV group - a niche manufacturer with 130 employees at sites in the UK and Germany. The firm is using a new drive and motor solution provided by Control Techniques and Leroy-Somer.

The Challenge

The previous motor and drive solution had been installed on the company's extruding line for over 15 years. Maintenance personnel were finding it difficult to find spares since the products had been out of production for some time. Additionally, the old drive and motor solution was energy inefficient by modern standards. As a result, Tech Folien decided it was time to upgrade.

The Solution

Tech Folien turned to RJW - a large electrical and mechanical contractor. RJW chose a Unidrive M701 drive from Control Techniques and an energy efficient IE4 LSRPM motor from Leroy-Somer.

The Unidrive M701 sets the speed control parameters of the motor and is installed in a cabinet away from the line. The motor is installed close to the line in the space vacated by the obsolete drive and motor. The control parameters can be easily programmed via a set of on-board macros.

When it came to the installation of the motor, RJW's engineering expertise and comprehensive support were vital. A custom base plate was designed for the motor to drop onto. This matched the old footprint, which was critical as installation space was limited.

The Benefits

Tech Folien had the old and new solutions compared by a firm of independent consultants. The difference in energy usage was significant. Measured over a year, the new solution is predicted to deliver savings of over 75% in energy costs.

"For Tech Folien, energy efficiency plays a vital role in ensuring profitability. This, along with machine uptime, represents a critical operational factor," stated David Churm, maintenance manager at Tech Folien.

"The new drive and motor combination from Control Techniques and Leroy-Somer gives us complete confidence that we can control our energy costs and ensures 24/7 operation for our manufacturing facility."

KEY BENEFITS

- 75% energy savings
- Small product footprint
- Easily programmed control parameters

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