





Retrofit of a film winder based on the model example "Loparex Germany GmbH & Co. KG"

Loparex is the leading global developer and manufacturer of release liners and films, with over 100 years of experience in the paper and film industry.

The company offers in-depth technical expertise and industryleading production technologies across operations in North America, Europe, and Asia. Different silicone types and curing methods are utilized to optimize the release properties of the final product, with dedicated experts available to help customers select and develop the right solution for their specific production processes and requirements.

Task

Loparex Germany commissioned HEITEC AG to modernize one of its existing film winders designated "Wrapper E27" A retrofit was required in order to ensure that the plant would operate at a higher level of availability, according to the latest safety standards, and with a guaranteed supply of replacement parts. The reasoning behind this approach was that a retrofit can be more suitable for existing plants than a replacement involving new construction because it results in shorter downtimes and lower costs. Through the exchange of outdated components and the addition of new, up-to-date technological developments, existing plants are restored to state-of-the-art condition. This reduces the risk of production standstills while also allowing employees to continue working with familiar technology without the need for extensive training. A retrofit also has a positive effect on product quality.

Analysis

The plant and production processes were analyzed and the requirements defined in consultation with the customer. Before re-engineering the plant software and hardware, the HEITEC team drew up design specifications. These specifications established the plant's actual and target states as well as the necessary planning steps.

One major focus was drive technology. The customer wanted the drive technology to be replaced with drives from another supplier in order to standardize the stocking of spare parts. As a result of this change of product, however, mechanical adaptations also became necessary. For example, special adapters were required that were designed and manufactured by the customer in cooperation with HEITEC.

RETROFIT

Implementation

Following an on-site inventory of the plant, hardware engineering was performed by HEITEC in Erlangen. Among other things, the new control panels were dimensioned, the necessary electrical components were planned, and new circuit diagrams were generated in EPLAN P8. Motors with suitable gearboxes and the associated frequency converters were also designed.

For software development, the HEITEC engineers were guided by the processes of a similar plant. For the implementation, the latest technology objects were deployed for the drive technology of the controller used.

Precommissioning on the customer's premises made it possible to minimize the plant conversion time. The new control panels and the associated field devices, such as motors, were set up and commissioned in close proximity to the plant. If there had been a defect in the existing plant that resulted in a production outage, this would have allowed alterations to be promptly made.

The actual conversion of the plant took place before and during the Christmas season in close collaboration with the customer. This meant that the plant was already back in operation and producing at its usual level of quality by the start of the new year.



HEITEC AG

Güterbahnhofstrasse 5 91052 Erlangen Germany

 Phone:
 +49 9131 877 191

 Fax:
 +49 9131 877 199

 Web:
 www.heitec.de

Summary

The goal: Consistently invest in existing plants. In close collaboration with Loparex Germany, HEITEC modernized a film winder plant with outdated control technology.

Thanks to an intelligent, creative retrofit solution:

- the risk of outages was minimized,
- plant safety was upgraded to the state of the art,
- faults were reduced, and
- plant availability was significantly increased.



This modernization guaranteed operation of the film winder for years to come.

Customer feedback

"Based on our experiences from previous projects, Loparex Germany has once again relied on HEITEC's expertise. Our confidence in the company's ability to modernize our film winder was once again rewarded. Even the additional challenges of changes in technology were overcome, thanks to the targeted, expert commitment of HEITEC employees.

We now have a reliably functioning plant that is state of the art and future-ready."

