



Modular control system rebuilds for winders

## More reliability with low capital expenditure

**Sippi eliminates risks at the winder with the modular control system rebuild. The plant in Lanaken is now protected against unplanned downtimes. The planning of the project according to the Perfect Fit concept accurately uses investments and seamlessly integrates existing, functionally stable components. Possible later use of further rebuild packages makes the control system rebuild future-proof.**



*Fig. 1: The old DOS computers (left) are replaced by new Windows-based PCs with current technology (right).*

Winders have worked reliably and safely over many decades. But control system technology has advanced significantly over the last few years. Previously, standardized controllers in Z80 technology were used to carry out technical functions such as positioning tasks or linear load controls. Today, a standard Siemens S7 PLC can do these tasks (Fig 1).

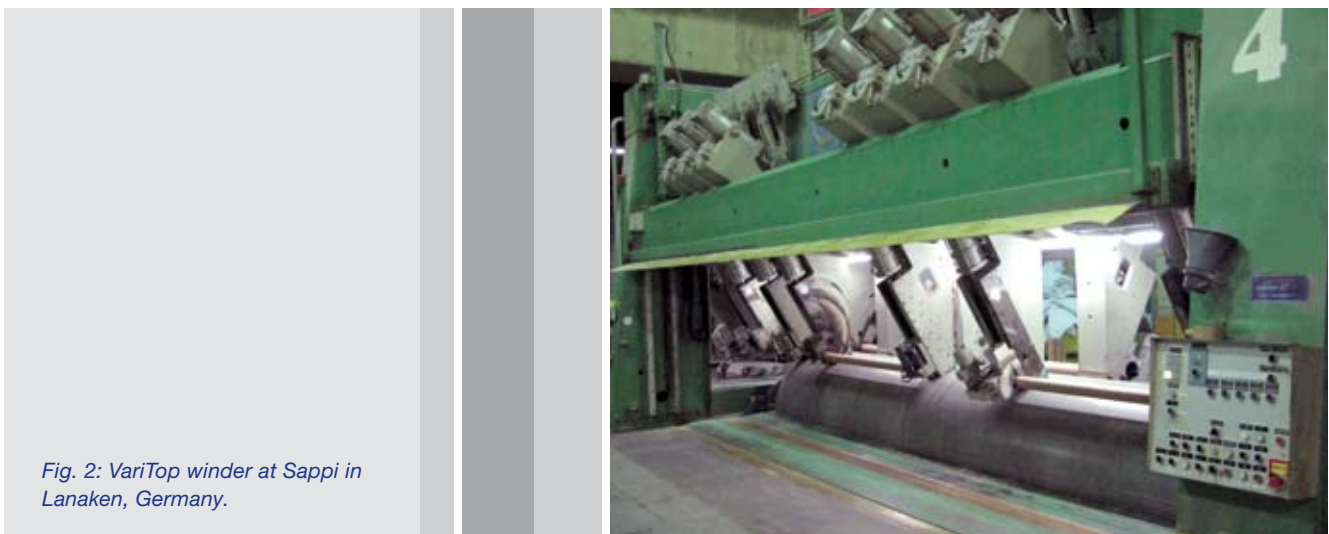
The age of control systems from the '70s and '80s makes them a downtime risk. In addition, their large number of components often lead

to failure of individual assemblies. Exacerbating this is a lack of supply of replacement parts, which often can no longer be obtained. For this reason alone, longer downtimes have to be expected.

**Modular concept – Perfect Fit**

Modular control system rebuilds for winders are part of a series of Perfect Fit solutions from Voith. It is an excellent example of how customized solutions can achieve set goals with a reasonable investment budget. The controller,

control desk and technology components that belong to the control system can be adapted to today's requirements, independently of one another and in any order. Due to the fact that the rebuild or replacement is limited to at-risk components, the risk of downtimes is drastically reduced, on the one hand, and the investment budget is spared, on the other. Elements that are not so prone to error and have a good supply of replacement parts remain fully integrated. They can be modernized at a later time with a further rebuild package.



*Fig. 2: VariTop winder at Sappi in Lanaken, Germany.*

	Control	Interface	Technology
Before	S5	Control desk	Teleset, Telebock LDS, ZHZ Jagmatic DOS
After	S5	Control desk	S7 VariTronic WinCC
Modernization options	S7 VariTronic WinCC		

**Location**

**Belgium**



Brussels

Lanaken  
Sappi Fine Paper

The township of Lanaken is in the east of Belgium. Close to the Dutch border, Lanaken has approximately 25,000 residents.

**Contact**



**Egon Bild**  
egon.bild@voith.com

Fig. 3: Comparison: before - after, including further possible modernization options.

**Field report**

Sappi Fine Paper produces coated graphic paper with a capacity of 500,000 tons/year at the Lanaken location. After some age-related difficulties with the control system of the VariTop (Fig 2), the company decided in favor of a technology upgrade on the winder. The requirement for an open system that is easy to maintain had to be met.

The existing computer systems were replaced by a Simatic S7. When replacing the old computer cabinets,

the entire wiring was retained and costs and time were saved.

Separately, the stop counter was eliminated and the angle encoders were replaced by new types or by a magnetostrictive sensor for the slitter positions. The system can be comfortably operated via an industrial PC with a WinCC user interface. Maintenance and replacement parts procurement is thus assured. Smaller repairs can be carried out with little training expense by a company's own operating personnel. If at a later time the PLC is also to be

modernized, then the machine functions can be smoothly integrated in the S7 that is now installed (Fig 3). Operation is then done exclusively via the operator station.



*“Voith only suggested to us what we really needed in this situation, nothing more.”*

*Alfons Loyens, SHEQ Engineer Finishing PL8, Sappi Limburg – Lanaken plant*

*“It was important to us that we didn't have to replace functioning elements of the control system. The integration of old and new was no problem. We were thus able to use our investment funds in a targeted fashion and despite that eliminate the problems and risks of the old control system. Voith only suggested to us what we really needed in this situation, nothing more. And that was convincing.”*