Nonstop operation

ENGINEERING TOMORROW

Case story | VLT® HVAC Drive FC 102

VLT® drives **operate nonstop** at the VALMIERAS STIKLA ŠĶIEDRA glass fiber factory

The situation

Since 1963, VALMIERAS STIKLA ŠĶIEDRA AS has manufactured a wide range of fiberglass products with the aim of constantly improving their operations. The company is located in Valmiera, Latvia, and together with its subsidiary VALMIERA GLASS UK Ltd. in the United Kingdom constitutes VALMIERA GLASS GROUP.

Glass fiber is a versatile and unique material, which can be found everywhere, and it is an important element for the functionality of a variety of everyday materials and devices, as well as innovative IT technologies, and even aircrafts.

At the VALMIERAS STIKLA ŠĶIEDRA factory, ventilation units play a key role as they operate 24/7 to supply air to the main boiler. Together with reliable drives from Danfoss, the company can continue manufacturing versatile fiberglass products and ensure sustainability in its operations.

VLT® drives from Danfoss have been operating reliably in many applications throughout the VALMIERAS STIKLA ŠĶIEDRA factory since the 1990's.

The challenge

The old ventilation system had been operating around-the-clock for many years and needed to be replaced, since nonstop operation of air handling is a key factor for VALMIERAS STIKLA ŠĶIEDRA. The ventilation units are used to supply air to the main boiler to ensure cooling, pressure regulations, and combustion air supply, which is essential when producing fiberglass products.

Apart from the need to update the factory's old system, it was also necessary to make the control as smooth as possible to ensure that all personnel can react to unexpected issues and solve them quickly.

The solution

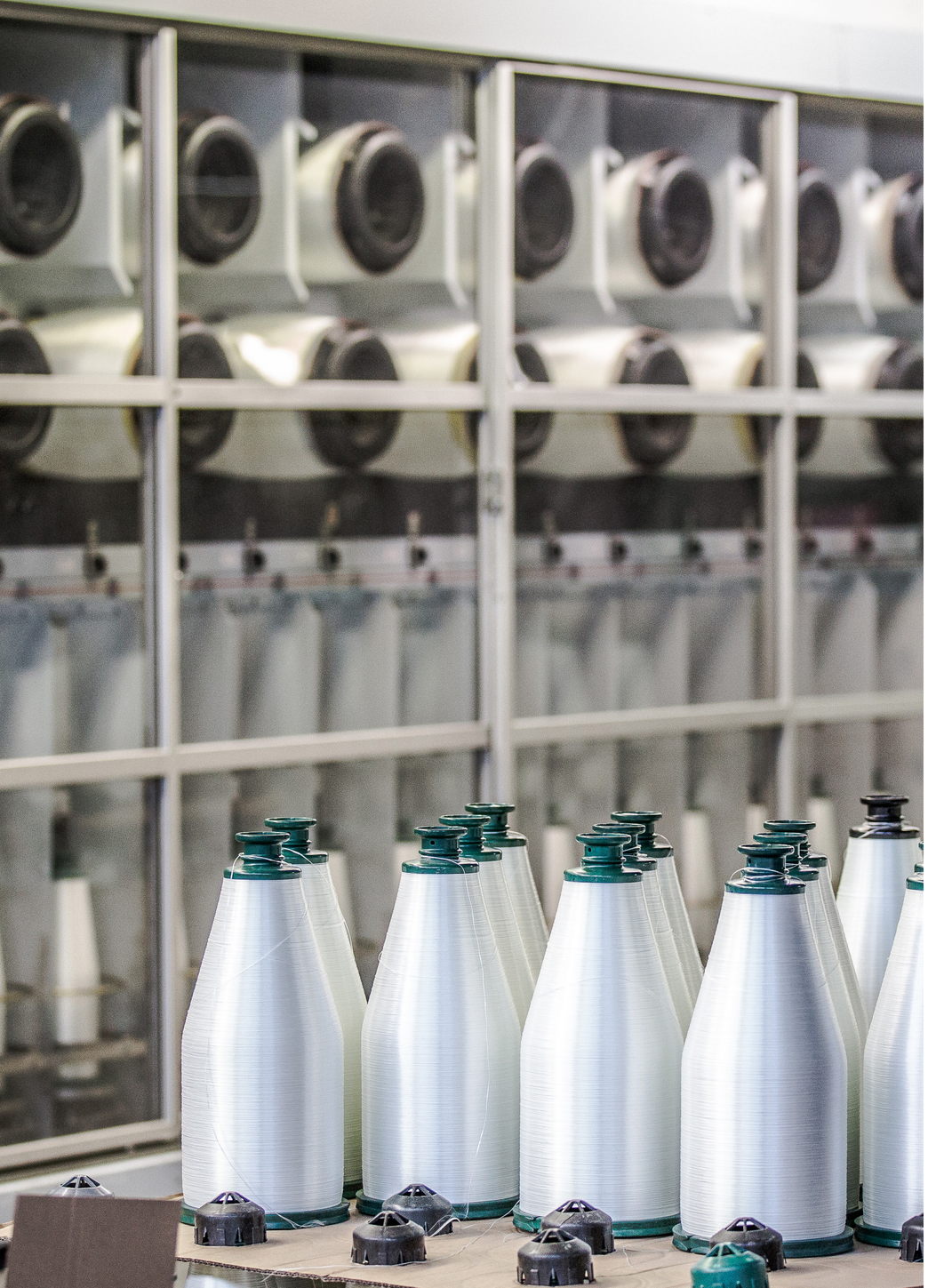
The project was signed with Danfoss Drives in April 2021 and finished in October 2021. Together with INDUCONT SIA and integrator ELDI SIA, VLT® HVAC Drive FC 102 drives and VLT® Compact Starter MCD 202 soft starters from Danfoss were installed at the VALMIERAS STIKLA ŠĶIEDRA factory.

INDUCONT SIA supported the condition-based monitoring and commissioning, while the integrator ELDI SIA has many years of experience with VLT® drives and therefore could ensure reliable integration of drives from Danfoss. ELDI has been involved in industrial automation and system engineering projects around the world since 1998.

In addition to drives and soft starters, VALMIERAS STIKLA ŠĶIEDRA chose to add three options for the drives to ensure even smoother operation: condition-based monitoring (CBM), VLT(R) PROFINET MCA 120, and Safe Stop. PROFINET offers a complete industrial Ethernet solution for manufacturing automation, whilst condition-based monitoring makes it possible to reduce unexpected downtime by providing the right information at the right time.

Avoiding unexpected downtime

with condition-based monitoring



The outcome

By updating the old system at the factory and using VLT® drives, VALMIERAS STIKLA ŠĶIEDRA continues its glass fiber manufacturing efficiently and sustainably for years to come.

With the help of the condition-based monitoring option, live data of the motor status can be collected. This helps to achieve their goal of preventive maintenance and makes it possible to analyze the data, and to schedule the needed maintenance to prevent unexpected downtime.

Condition-based monitoring makes it possible to reduce unexpected downtime by providing the right information at the right time.

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