



Heat Transfer Engineering

### Kronospan Schweiz AG, Menznau, Switzerland

Kronospan Schweiz AG is a subsidiary of Lucerne-based KRONO Group Switzerland with plants throughout Europe. It is one of the leading manufacturers of wooden materials and sets standards in terms of environmental engineering. At the Menznau plant, particle and fibre boards for furniture production and interior work as well as HDF for laminate flooring are manufactured with Swiss precision and quality. 75% of all products made there are exported.

### Innovative KSB pump technology for handling thermal oils

Kronospan Schweiz AG already relied on KSB's thermal oil pumps in 1969 when the first particle board left the Menznau plant located in the Lucerne hinterland. Over the years, this business relation between KSB and the Swiss company has developed into a cooperative partnership.

More than 40 KSB thermal oil pumps of the Etanorm SYA and RSY type series are currently employed in the 35 heating and control circuits of the production site in Menznau. They reliably handle Transcal N thermal oil for the supply of the machine presses in the MDF and particle board production area.

Thanks to many years of good experience with KSB's heat transfer pumps, Kronospan again decided in favour of our products for its new heat generation system with a total power of 55 MW, which was commissioned in February 2010. For this modern system, Kronospan ordered another six Etanorm SYA, three Etanorm RSY and our novel Etanorm SYT pump.





The operator's main reasons for choosing the new Etanorm SYT thermal oil pump as a pilot project were the significant product benefits which it offers for the handling of synthetic heat transfer media. The pump's novel design makes for even higher robustness and torsion resistance while, at the same time, less heat is transferred to the bearing bracket. Another ground-breaking feature is the highly effective venting contour which ensures maximum operating reliability. Overall, the new Etanorm SYT requires even less maintenance than its predecessors and is KSB's innovative response to the increased demands on pump technology used for synthetic heat transfer media. The pilot pump is an Etanorm SYT 150-400 with a discharge capacity of 470 m<sup>3</sup>/h, a discharge head of 46 m and remarkable efficiency of 83.8%.

KSB's pumps installed in the new heat generation system are running 24/7 and reliably supply the facility with process heat of which about 50 percent is used for heating the thermal oil for the presses to temperatures up to 285°C and the other half for drying wet wood fibres using hot gases of temperatures up to 350°C. To this end, biomass in the form of recycled wood, wood waste and bark is used as fuel. About 13 transport units of fuel are required every day which translates as up to 10 tons of wood per hour. For decades, our experienced service experts have taken good care of this plant to avoid failures or even highly expensive downtimes.

## Scope of supply and technical specifications

### Operator:

Kronospan Schweiz AG

### Engineering contractor:

Ness Wärmetechnik GmbH,  
Remshalden

### Master consultant:

Richard Kablitz & Mitthof GmbH,  
Lauda-Königshofen

### Scope of supply – heating and control circuits

40 Etanorm SYA and RSY  
of different sizes

### Scope of supply – new heat generation system:

1 Etanorm SYT 150-400.1  
4 Etanorm SYA 150-400.1 SYA8  
1 Etanorm SYA 150-400.1 SYA8  
1 Etanorm SYA 150-315 SYA8  
3 Etanorm RSY 200-500

In addition, another four Etanorm SYA and Etanorm RSY pumps were installed as part of modification work on the heat energy supply system in the production area.

### Fluid handled:

Transcal N thermal oil

### Operating temperature:

280 to 290°C

### Commissioning:

February 2010

**Should you need more information, please do not hesitate to contact me:**

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