

BHW Beeskow saves energy in fiberboard production with Valmet's mechanical steam separator

In January 2015, Valmet's first mechanical steam separator for fiberboard production, PeriVapor, was installed at BHW Beeskow Holzwerkstoffe GmbH, Germany. PeriVapor is specially designed for positioning in the blow line after the Defibrator. **TEXT** Ulf Eriksson

Valmet has extensive experience of mechanical steam separators used in the mechanical pulping process. This experience played a key role during constructing the new mechanical steam separator at BHW Beeskow.

What is a mechanical steam separator?

During the defibration process in fiberboard production, a large amount of steam is generated from the moisture present in the chips when they are broken down and the fibers exposed. The mechanical steam separator can divert up to 50% of the generated steam from the fiber flow for recycling in the pre-steaming bin. This steam replaces a corresponding amount of fresh steam making great savings possible.

Great savings in energy

At BHW Beeskow, the PeriVapor mechanical steam separator recycles 4-5 tonnes (about 6 bar) steam per hour. The mill has its own facility for producing steam for a turbine for production of electricity. The reduced amount of steam the pre-steaming

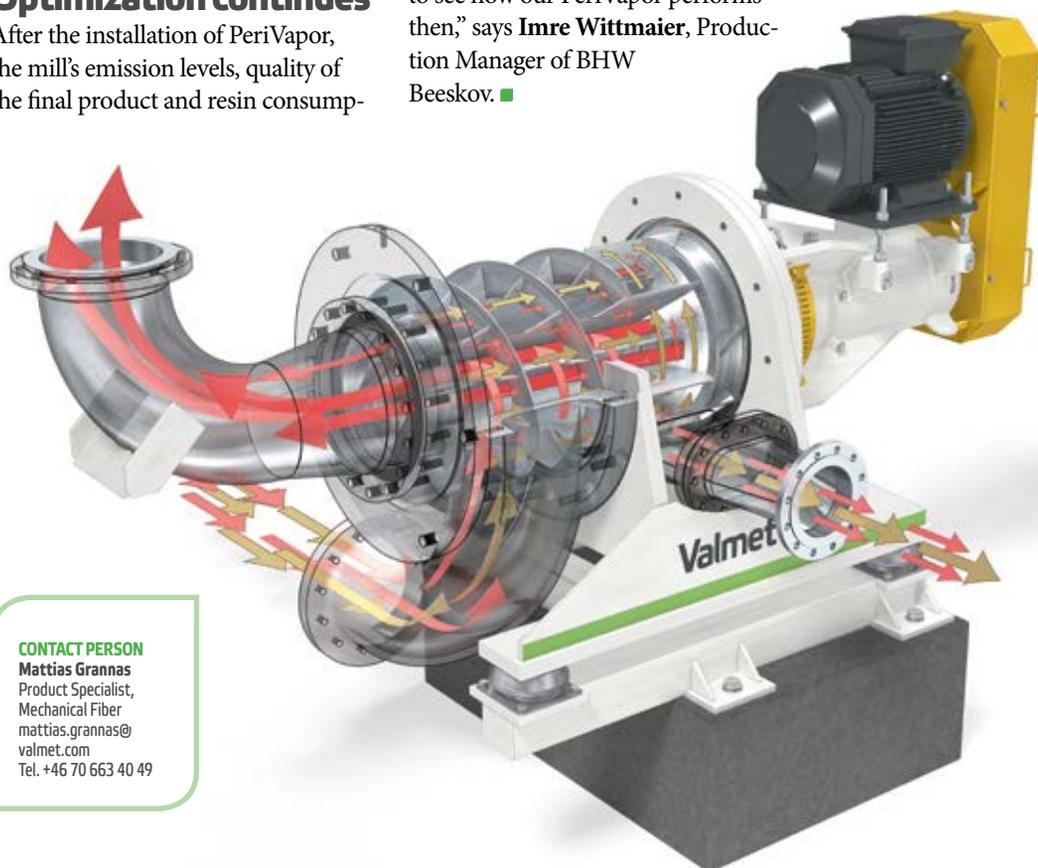
bin requires is now passed to the steam turbine. Today about 1.4 MW/h more electricity is produced in the steam turbine. This electricity can be sold to the grid as green electricity at a favorable price.

Optimization continues

After the installation of PeriVapor, the mill's emission levels, quality of the final product and resin consump-

tion have remained unchanged. It is too early to be able to evaluate the positive effects on production because the mill is still in the running-in phase. Time will tell if other benefits can be achieved.

However, one benefit that can immediately be seen is the inlet temperature in the dryer. It has been reduced by 5-8 degrees centigrade. If the dryer is a bottle-neck, this temperature drop gives a possibility for an increase in the production. "The machine has been in operation during the hot summer months when the need for steam/heat is significantly lower than during the winter. It will be interesting to continue optimizing the process during the cold period to see how our PeriVapor performs then," says **Imre Wittmaier**, Production Manager of BHW Beeskow. ■



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