

Spring 2007

Mill Experiences of Evacuating Refiner Plates

J&L enjoyed visiting with many customers at the 2007 International Mechanical Pulping Conference (IMPC) held this May. J&L Fiber Services was a vendor participant and presenter. Many sessions were held over three days including **Mill Experiences of Evacuating Refiner Plates**, presented by Ola Johansson, J&L's Technical Director.

Mill Experiences of Evacuating Refiner Plates

The Thermo Mechanical Pulp process (TMP) has many advantages, but the recent worldwide increase in electrical energy cost threatens the existence of the process. The majority of the electrical energy consumed is applied in the refiners as mechanical energy put into the fibers through energy transfer which also produces an enormous amount of heat. For years researchers have measured and studied the impact of the temperature within the process on refining efficiency and pulp quality. It is clear that the process performance can be affected significantly by altering the operating temperature and pressures.

The concept of evacuating refiner plates was introduced at the IMPC 2005[1] conference. With this technology the unrefined particles take a separate path from the already refined particles and steam. This makes it possible to control and alter the temperature and pressure profile prevailing in the refining zone. As a consequence the refining conditions can be optimized for higher refining efficiency.

The presentation reviewed results from several full scale mill trials with emphasis on refining efficiency and pulp quality as well as operational issues.

If you were unable to attend IMPC, you can obtain a copy of the paper, **Mill Experiences of Evacuating Refiner Plates**, by e-mailing Ola at OMJohansson@jlfiberservices.com.

References

[1] Johansson O, Richardsson J, "The effect of refining zone temperature on refining efficiency", 2005 International Mechanical Pulping Conference Proceedings, Oslo.

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