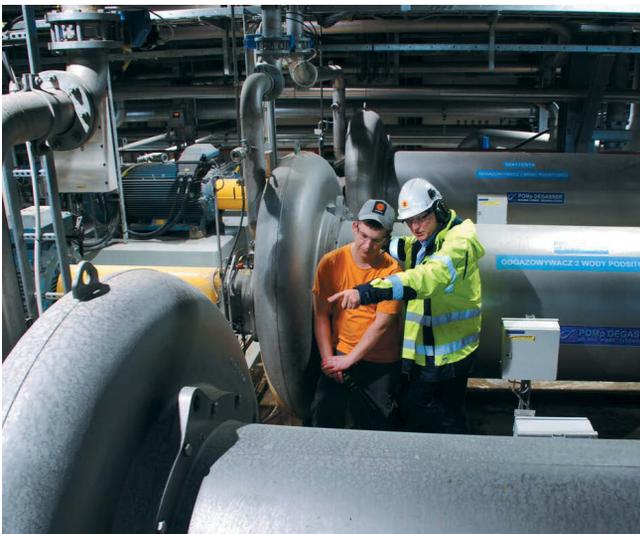


Stora Enso Ostroleka PM5 Proves Less Is More

Over the past three years, almost half a billion euros have been invested at Stora Enso Ostroleka in Ostroleka, Poland. Nearly energy self-sufficient, the mill is a leading producer for Central and Eastern Europe.



Witold Kostecki, Competence Center manager, Stora Enso (right) with operator Rafał Romański.



PM5 uses 100 percent recycled fiber supplied by SE Ostroleka's own recovery network throughout Poland.

When Stora Enso Ostroleka launched PM5, the new 455,000 tpy lightweight containerboard machine, in May of 2013, the big inaugural event went smoothly, showcasing an important new facility for Central and Eastern Europe. Fueled largely by domestic supply of 100 percent recycled material, PM5 churned out liner and fluting at high speed, just as planned. What was not obvious that day, or to any visitor since, was the multi-million euro savings in civil engineering. Also not obvious was the exceptional high strength and smoothness of lighter weight grades, made possible by innovations in stock preparation and drying.

WHERE'S THE BASEMENT?

Something is missing at this impressive site. "The usual massive basement beneath the new machine doesn't exist," says Witold Kostecki, Competence Center manager, Stora Enso. "Our engineering streamlining eliminated

structural costs, as well as piping, electrification and HVAC, adding up to around 17 million euro. We shortened construction time by two months. Another bold step included installation of a compact POM™ approach system from Aikawa Fiber Technologies (AFT), instead of the traditional massive silos, storage tanks and deculator. More capital costs were saved with this decision, but even better, the POM system improves quality and efficiency, and costs less to run and maintain."

Continues Kostecki, "We also dry from both sides, giving us superior flatness, providing better runnability for corrugating and printing. Always focused on quality and market needs, our customers are more satisfied than ever, and we are a lower cost producer."

PROPERTIES OF SUCCESS

From a performance standpoint, the containerboard grades at SE Ostroleka all deliver

what customers are demanding: better stacking strength, bursting strength, puncture and flat crush resistance.

Says Kostecki, "Consistent surface texture, smoothness and color hue stability now happen routinely. With pinholes and impurities no longer an issue, imperfections in printing are rare. Because of our high flatness and dimensional stability, converters tell us that they are running faster and smoother on a consistent basis."

LESS CONSUMPTION ADDS UP

Adds Radosław Kopeć, Stora Enso production manager, "With the POM system our team can push paper machine performance even higher. There is no substitute for stability to improve runnability. When contaminants don't build up in silos and storage tanks, you not only run better today, but you have confidence for tomorrow and



Risto Nykänen checking the POMmix tank.



Risto Nykänen, project manager, AFT (right), and Witold Kostecki, Competence Center manager, Stora Enso, standing beside PM5.



Radosław Kopeć (left), Stora Enso production manager and Krzysztof Gałązka, wet end operator.



"Customers like the smoothness of our board, and tell us that efficiency is high on their converting machines," says Petri Paakkanen, mill manager of Stora Enso in Ostroleka.

beyond – even when the recycled furnish poses challenges.

"Our operators also appreciate the efficient deaeration from POM Degassers, and management values the investment *not made* for the typical extensive mezzanine to support and house an expensive deculator."

POM ANATOMY AT OSTROLEKA

The POM compact approach system includes very few components. Two POMix Stock Processors mix the stock. Three POMp degassers deaerate the whitewater. Two POMlock suction leg sealing units complete the basic system.

According to Risto Nykänen, project manager, AFT, "Stora Enso has improved drainage, cleanliness and quality, which are essential for consistency and high operating efficiency. We like to say that POM means 'Peace of Mind'. You get more from less, and

with ease. In addition, systems engineering of the entire approach flow, combined with training, make a measurable improvement happen on a continuous basis."

Nykänen points out that air and gasless short circulation is a central feature of POM. "When you eliminate flotation of dirt and pitch on air bubbles, less microbiological activity and flocks are the norm. Extreme cleanliness produces quality not otherwise possible on a continuous basis. Problems like pinholes and other imperfections are no longer a concern." Some of the key benefits from POM include: stability; controllability; cleanliness; energy efficiency; a small footprint; and investment, operational and maintenance savings.

FIBER AND FILLER GAINS

When there are no tanks with open surfaces to collect pitch and dirt, smart

whitewater fractionation results, saving fiber and filler.

Says Nykänen, "Fast flow speeds actually keep the pipes clean so that a stable process is maintained."

According to Kopeć, "In keeping with our desire to minimize chemical usage, we like the self-cleaning effect of the POM system. Even so, defoamers are still needed, but only half the amount as before. Other productivity benefits include 75 percent fewer wet end breaks and much faster grade changes."

"When you start up and stabilize faster, it's easier to satisfy customers, who need a particular grade with short turnaround time. This matters a lot in an intensely competitive market," concludes Kostecki. 

Martin Koepenick is president of Innova and can be reached at mkoepen@earthlink.net.