BOOSTING CAPACITY

AT PULP MILLS WITHOUT BREAKING THE BANK

ANDRITZ cooking technology and extensive know-how enables a boost in capacity at pulp mills by as much as 350 t/d by utilizing mill rejects, waste from the woodyard, sawdust, and even non-wood, low-cost fiber.

Increasing capacity at a pulp mill usually demands high capital expense along with major disruption. ANDRITZ has developed unique, alternative solutions for all pulp mills that allows for an additional 40 to 350 t/d boost to capacity. Furthermore, the cooking technology involved can process fiber types of all kinds, including mill waste and rejects, low-cost wood, and non-wood fibers.

Antti Hyvönen, Director, Sales Fiberline, ANDRITZ says, "As the world switches from plastic fossil fuel derived products to fiber-based products, the demand for wood is increasing. This means that all fibers are now becoming a precious commodity, including waste and rejects from the mill, and even low-cost fibers from outside the mill.

"ANDRITZ has developed add-on solutions and upgrades to the fiberline that allow the use of all different types of fibers, boosting the capacity of the mill. These technologies can be applied to any existing fiberline no matter what size, installed technology, or the original supplier."

TAILOR-MADE SOLUTIONS FOR ALL FIBERLINES

There are basically no limits to the types of fiberlines that can be adapted to increase capacity. For conventional kraft mills, ANDRITZ has developed its proven A-ConApex™ continuous cooking system that gives perfect opportunities to utilize all types of fiber, including non-wood raw materials. The system is a fully independent continuous cooking system installed next to the digester at a mill. The system has been designed for simplicity, with just one conveyor, a materials bin, a steam feeder, a mixer, pumps, cooking reactor, and discharger.

Jarmo Kinos, Manager Technology Fiberline, says, "The A-ConApex system is purely designed to use waste from the mill processes, as well as any other available fiber. This is a very simple process that utilizes high temperature cooking in the digester."

For other systems, such as the older M&D cooking system, capacity can be increased by up to 30% with modernization and upgrades. As well as the increase in capacity, improvements come in the form of reduced energy and white liquor consumption, as well as quality and yield improvements.

Paavo Tolonen, VP, Global Product Group Manager, Cooking, says, "We have a huge amount of knowledge at ANDRITZ when it comes to older and existing cooking systems and we can upgrade and modernize any existing systems used for sawdust and annual fiber cooking. Each of these adaptions is an individual case, and our experts look at each case according to our customers' needs."

A HOLISTIC APPROACH

ANDRITZ makes the journey to increased pulp capacity, as well as improvements to energy and chemical use, very simple and will hold the customer's hand all the way through the process.

Aki Muhli, Technology Manager, Cooking Technologies at ANDRITZ says, "First of all, we evaluate the situation with the customer; what are the goals? What raw materials are available? And of course, what are the conditions of the existing system? We then take away samples of the raw material the customer has identified and carry out lab tests to ensure efficient cooking can take place.

"We basically take a holistic view of the entire process at the mill, and then design the best possible solution. As well as the increased capacity, we ensure that the customer also receives the latest in technology to reduce energy and chemical consumption, resulting in wins all across the process."

ANDRITZ already has successful references across the industry; an A-ConApex continuous cooking system was recently installed at Altri's Celbi mill in Portugal, which has enabled an extra 60 t/d of pulp production from utilizing wood waste and, in Finland, MM Kotkamills has recently undergone an upgrade to its M&D digester cooking system, which has resulted in a 30% increase in capacity.

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A-ConApex™ continuous cooking technology is suitable for a wide range of fibrous raw materials.