



“We are very satisfied with the exceptional performance of the IntensaPulper and also plan to equip other production lines with this pulper.”

Akihiro Yamamori (left) and Mitsuaki Fujimoto (right), Oji Paperboard, Oita Mill, Japan.

Energy-saving pulping concept for recovered paper fibers

Success for IntensaPulper IP-R in Japan

Voith IHI Paper Technology has received the “Sasaki Prize” from Japan TAPPI for the new IntensaPulper. The new pulping concept is catching on outstandingly in Japan: eight new IntensaPulpers were ordered in the last 18 months and another four pulpers were converted to IntensaTechnology.

The IntensaPulper IP-R is based on the IntensaPulper IP-V which was designed for pulping virgin fibers. With the IP-R model it is now also possible to pulp recovered paper. In comparison to conventional LC (low-consistency) pulpers, substantial structural changes were implemented. On one hand, the rotor in the vat was eccentrically placed; on the other hand, the transition from the bottom of the pulper to the cylindrical wall takes place in a flow-optimized fashion with a double-cone bottom (we reported on the new development in the last issue of *twogether* magazine). Together with optimization of the flow guide elements in the pulper vat, an energy saving of up to 25% is thereby achieved.

Progress for the Paper Industry

In Japan, the IntensaPulper IP-R was a success from the very beginning.

The first model was installed in January of 2007 at Oji Paperboard in Oita, where it replaced a conventional LC pulper. Its eccentric vat has a volume of 50 m³. With an actual input power of 420 kW, this IntensaPulper is for pulping Japanese OCC (JOCC). It is distinguished by its high capacity and an improved pulping action. In the production quantity of up to 850 t/d (air-dried), there are only half as many flakes today as before the installation of the IntensaPulper IP-R. Since the first startup, seven other IntensaPulpers were ordered in Japan and four pulpers were retrofitted.

After the new pulping concept was awarded the “Palme de l’Innovation” in October 2007 at the ATIP trade fair in Grenoble, France, an official distinction in Japan also did not fail to materialize: in May 2008, Voith IHI received the “Sasaki Award” from Japan TAPPI for development of the

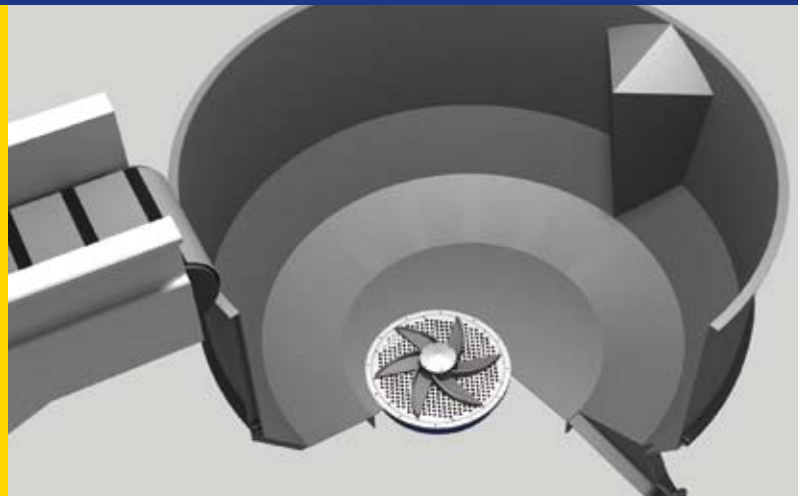
IntensaPulper, which was characterized as great progress for the paper industry. “Actually, no one in Japan could imagine that there could be an even more efficient and better LC pulper than the hitherto commercially available pulper,” says Masakazu Eguchi, Manager of Stock Preparation Engineering department, Voith IHI Paper Technology in Japan. “But now the IntensaPulper is the non plus ultra.” Already more than 20 IntensaPulpers IP-V and IP-R have been ordered worldwide from Voith Paper.

Conversion with profit

Existing LC pulpers can be upgraded to the current state-of-the-art with so-called IntensaTechnology. An “IntensaTechnology conversion set” consists of a flow geometry adaptation in the vat and a simple rotor conversion or exchange that accompanies a speed correction, depending on the system.



The Japanese Sasaki-prize certificate.



The new IntensaPulper IP-R.

The effect of these measures is impressive. “In a specific case, we optimized a Hydrapulper in a Japanese paper plant in such a way that the specific energy requirement was reduced by 50%,” according to Masakazu Eguchi. With an actual input power of 560 kW, 450 tons of recovered paper per day

(air-dried) had previously been pulped at this facility. After the conversion with IntensaTechnology, the power input is only 420 kW, although the production quantity was increased to 750 t/d. Two other Japanese facilities that process JOCC as raw material were likewise successfully converted.

Contact



Naoyuki Iwashige

naoyuki.iwashige@voith.ihl.co.jp

Customer trials at the Voith Paper FTC in Ravensburg

The birthplace of new solutions in stock preparation

The Voith Paper Fiber Systems Technology Center (FTC) in Ravensburg focuses entirely on stock preparation – which influences the complete paper manufacturing process. At the FTC, Voith Paper develops customized process and system solutions that often set benchmarks for the future.

“We always had problems with contaminants in our stock preparation line that caused papermaking irregularities,” explains Christopher Kaessberger, head of stock preparation at Rieger Paper, Trostberg.

Voith specialists came to the rescue by thoroughly testing and analyzing his stock preparation system with several simulation trials in the FTC. In teamwork with the customer, they

then worked out a highly efficient screening system that has effectively banned this problem ever since. At the heart of the FTC is a highly versatile trial facility where stock preparation processes for all paper grades can be reproduced under realistic production conditions. This is complemented by a state-of-the-art paper analysis laboratory. The Voith FTC not only solves customer problems, but also works out superior solutions in stock prepa-

ration. “Quality, costs and sustainability are always the primary criteria in papermaking,” points out FTC trial engineer Yvonne Waibel, “Which is why many of our trials are aimed at using lower-cost raw materials while increasing yield and reducing overall process energy costs.” More importantly, in every case is to complying with quality requirements, at the same time minimizing investment and operating costs.