

## Materials selected for stable printing quality

### Printing blankets must provide consistent level of quality

When Yamakawa Printing Co., Ltd. introduced a German-built Heidelberger Druckmaschinen AG eight-color double-sided printer, the Fukushima Prefecture-based company became the first ever to do so in Japan's Tohoku region. The company is actively working at applying state-of-the-art technologies such as FM (frequency modulated) screen technology with a goal of providing consistent high quality—and the Vulcan Folio printing blanket is one such example. Muneaki Tachibana, Executive Managing Director at Yamakawa, talks about the evaluation process for Vulcan, and the background to the product's introduction.

Yamakawa Printing Co., Ltd. was founded in Fukushima Prefecture in 1937. Today headquartered in an industrial park in the prefecture, the company takes great pride in its strong local routes, and its contribution to the local community and its fast response to the ever-changing and advancing printing industry. In August 2003, the company made the decision to make a bold investment for the future to ensure its competitiveness in an industry where customers increasingly demand both higher printing quality and the lowest possible prices. Yamakawa purchased a Speedmaster SM 102-8P, an eight-color double-sided press with a full 636 x 939 mm capacity, produced by the world-leading Heidelberger Druckmaschinen AG of Germany. This was the first time the press was introduced in the whole of the Tohoku region.

Prior to the introduction of the Speedmaster, the company began work on FM screen technology as another way to differentiate it in technical abilities from other firms. Yamakawa staff made a thorough investigation of all printing conditions, including materials, equipment and conditions for the use of FM screen technology in conjunction with state-of-the-art presses, creating its own original color management systems. Printing blankets were also one part of the review of processes.



The Heidelberger Druckmaschinen Speedmaster SM 102-8P press

### Vulcan Folio



Vulcan offset press blankets proudly hold the worldwide top share of the market. Folio blankets, used in high-speed sheet-fed presses, effectively inhibit gauge loss by absorbing vibration through the use of a compression layer with a special polymer. Combined with an excellent surface rubber material, Folio helps to achieve high printing quality and durability, regardless of the press type used.

### Blanket Degradation with FM Screen Printing

"For AM (amplitude modulated, the traditional color-separation screen technology) screens, degradation of the blanket did not noticeably affect the quality of the product," Mr. Tachibana says. In the case of FM screens, however, there is an immediate change in dot gain (the size of the individual color dots that make up a printed image). The color difference is obvious at a glance.



Yamakawa Printing Co., Ltd. Executive Managing Director Muneaki Tachibana

"However, nothing could be done to stop the degradation of blankets made from rubber and fiber," Mr. Tachibana continues. "When we had almost given up and were thinking that we had no other choice than change operator adjustments, Heidelberger recommended the Vulcan Folio."

So along with their new Speedmaster press, Yamakawa also began the use of the Vulcan printing blanket—and they seem to be very satisfied. "It's clear that Vulcan lasts longer than the products of other manufacturers," Mr. Tachibana says. "The degree of degradation is two to three times lower than that of other products. We don't need to adjust the machine very often in order to maintain printing conditions."

### Vulcan: Showing its Advantage in Extended Use

"Blankets made by Japanese companies have perfect



Yamakawa Printing Co., Ltd. located in the Fukushima West Industrial Park

Client: Yamakawa Printing Co., Ltd.  
Products: Vulcan Folio offset press blankets, used in a Heidelberger Druckmaschinen eight-color, double-sided printing press  
Introduced: February 2004

performance during the early stages of use, but deterioration speeds up rapidly later on," Mr. Tachibana says. "On the other hand, Vulcan products show their performance advantage during long-term use. Their performance at the start of use is between 80 to 90 percent, so domestic products start out stronger, but Vulcan is able to provide continuous quality for long periods after that. For Yamakawa Printing, where our motto is consistent quality, being able to maintain the same printing level is the most important condition. Vulcan very much matches our goals."

### Fixed Cycle Preferred

Finally, Mr. Tachibana was asked what he looks for in a printing blanket supplier. "More than anything else, we expect consistent quality and supply when we look at printing blankets," he says. "Naturally we prefer a longer cycle, but consistency is important: if the product lasts only three months this time while the previous one lasted for six months this is a problem. It's OK if it lasts only three months, but it's best if the cycle can be set precisely, because it's difficult for the operators if they have to assess when the product needs to be replaced."



A Vulcan Folio mounted on the Speedmaster SM 102-8P and used in eight-color printing

Yamakawa Printing Co., Ltd. has the goal of being a printing company that satisfies both customers and employees over many years. They want to hear that customers were glad that Yamakawa was there, and that employees are proud that they work for Yamakawa. For Gadelius, we hope to hear that Yamakawa was glad they selected Vulcan printing blankets.

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The quality demanded for printing blankets is becoming more and more severe as color management, FM screens, waterless printing and other technologies emerge. In this environment, I think that the low level of degradation—one of the Vulcan Folio's top characteristics—is attracting wide attention. Yamakawa Printing's policy of consistent high quality matches the characteristics of Vulcan. That's why I think we received this order from them.

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