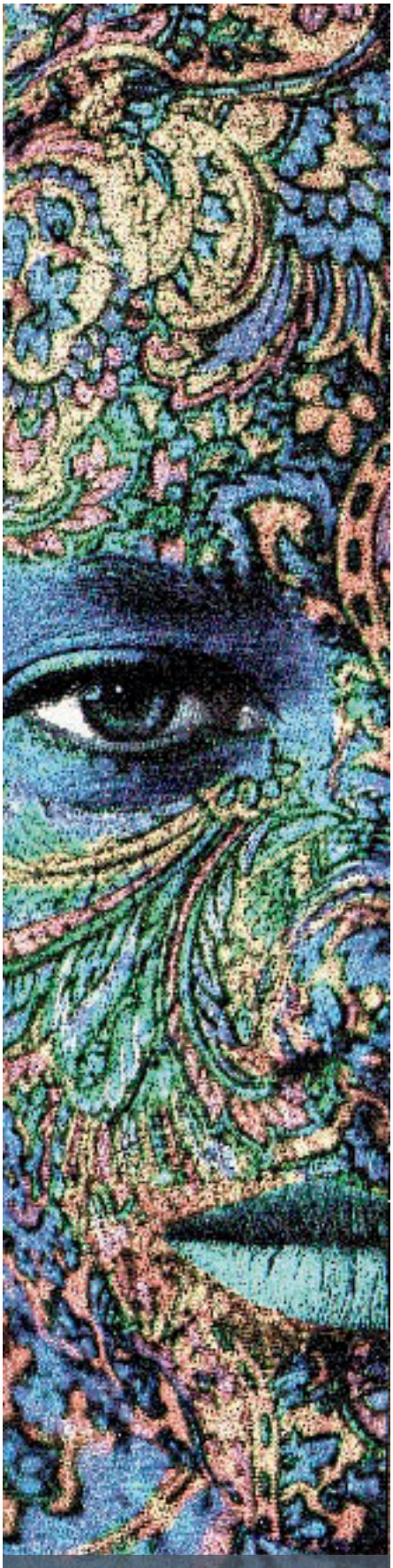

RGB printing makes a dramatic impression

REVAMPING EXISTING TECHNOLOGIES

Often working closely with Saueressig, inventor of the sheet-fed gravure press, H.C. Moog provides **machine-based solutions** to accommodate new, and often eye-popping, printing effects to help tobacco clients overcome problems with limited space. The company keeps its remaining (unpopped) eye on sustainability.

"What's new at Moog?" This is the question Moog CEO, Achim Kurreck faces on a daily basis when visiting his customers, 85 per cent of whom work in the tobacco industry.

The core technology behind Moog's sheet-fed printing presses has not changed in over 10 years, yet the company is constantly inventing.

As the industry advances, Moog works to come up with cost-efficient tools to help its customers integrate new printing and refinement techniques into their existing machines.

Unlike web-fed rotogravure machines, Moog machinery prints using gravure technology on individual sheets of paper or card. According to Kurreck, this type of printing allows for more flexibility and is especially efficient for short runs. As the sheets can simply be turned over and reprinted on the other side, it is also easy to adapt them to printing on the inside of packs – something becoming more and more necessary as graphic health warnings stretch to behemoth proportions.

Like Saueressig, Moog has been working on adapting its technology to help its customers maximise both branding space and cost-efficiency since the implementation of pictorial health warnings in the EU. To do this, the company helps facilitate new technologies (as well as those long-overlooked) for its customers.

HIGH GLOSS SILVER INK

One of the most popular solutions to overcome concerns about limited branding space is to replace the use of metallised board with high gloss silver ink. Printing on white paper, this technology achieves the same high shine as using metallised board for the whole pack but offers many advantages in terms of both costs and efficiency. Metallised board is notoriously expensive and is not recyclable. Now health warnings cover most of packs, companies have to print opaque white over a large proportion of the board to hide the shine, just to print the warnings on top. For this reason, Kurreck explained, it is more cost-efficient, and far more sustainable, to use high gloss silver ink only on the areas of pack which require it. High gloss silver can be used on a variety of substrates to create various effects. It can also be combined with different types of primers and varnishes to create either a high shine or matte look.

This may seem very new but Kurreck says the technology to print high gloss silver has been around for over 20 years.

"Most well-known technologies come too early," he explained. "Until now, there has been little demand for it. A few years ago, nobody cared about the recyclability of board or metallised board but in the last few years, sustainability is all people talk about.

Photos: H.C. Moog

"In my opinion, everybody has to rethink existing technologies. This is to make them better or easier or cheaper to suit today's possibilities."

This is exactly what Moog has done with high gloss silver. In order to keep costs low for customers using this technology, the company has invented an ultra-low volume ink pan to contain this expensive ink within its machine. Normal production ink pans in gravure machines hold between 10kg to 12kg of ink. This one, made for expensive inks, holds just 2kg.

"Our customers change the pans frequently according to the job," Kurreck said. "They can now change within 10 seconds from a big volume to a small volume." No wasted board, no wasted ink.

When it comes to special inks, it is not just high gloss silver that is growing in popularity. "Special pigments are becoming more and more important," Kurreck told TJI. Hologram pigments, for instance, are garnering much attention. When mixed with ink, these produce metallic rainbow effects all over the printed surface.

Moog has also noticed increased interest in multisensory packaging. Varnishes or lacquers can be mixed with additives to create tactile effects like "soft touch" or what is known as "rubber varnish" (an effect which, unsurprisingly, gives a pack a rubbery texture). Although rubber varnish is rather new, soft touch printing is already being used for a number of brands including Marlboro and Davidoff.

Tactile varnish is also being put to new uses. "For many years, tobacco companies used clear tactile varnish," Kurreck said. "The new thing is to use tinted raised effect varnishes." These are a mix of clear varnish with metallic pigments to achieve a high gloss, raised metallic effect. Scented microcapsules can also be integrated into varnishes to make packages emit a particular scent although this technique has not yet been adopted by the tobacco industry.

In order to help customers achieve these special effects, Moog works closely with pigment suppliers and cylinder makers.

The company recently collaborated with a number of other companies facilitating the technology for RGB printing (see the image on the left). "RGB printing makes a very striking impression," said Kurreck. "The shine is always there. It can also be used for brand protection."

When it comes to security, Moog technology now offers customers the opportunity to print in 10,000 dpi. This allows for microcodes and hidden features to be hidden in the print. The company is also preparing for the eventuality that tobacco companies may want to print information on more unusual surfaces to maximise space. "We are developing a digital solution to print conventional ink and varnish on all kind of substrates," Kurreck said. "The advantage is that the technology can print on any kind of substrate and can use any kind of ink. For the known digital solutions, you always have to use special certificated papers and certificated inks which make the process costly." Aside from this, Moog helps its customers adapt machinery for debossing and embossing: techniques which are becoming more and more popular for cigarette packaging.

Achim Kurreck, CEO, H.C. Moog

High gloss silver ink

High gloss gold

Hologram pigments create rainbow effects

There are many options and Kurreck believes some of these printing technologies are simply "too new" to be adopted by the tobacco industry – at least for now.

"The tobacco industry is changing very slowly," he said. "When it comes to design, tobacco companies are experts at long-term thinking." He believes that, as with high-gloss silver, it might be 10 years down the line before companies begin to integrate some of these effects. "However, if there is a demand to do something special, we are ready for it," he said.

Sophie Bullen