Substrate Thickness compensation on the Gallus EM 280

Labelexpo Americas 2006 was the platform for the introduction of servo technology on the Gallus EM 280. Whilst servo motors are not new to the Gallus EM 280, this latest product improvement offers the customer even more flexibility than before!

In addition to the new patented chambered doctor blade and the disengaged screen printing unit, the new servo overdrives for the web transport and the print and die heads generated much interest at this recent exhibition. But, what is meant by the term web thickness compensation with servo overdrive and what are the actual benefits, is this press truly multi-substrate?

Web thickness compensation is exactly what it describes: The intelligent servo motor on the print and die positions compensate for the different surface speeds of the web created by the different substrate thicknesses by either speeding up or slowing down the print and die cylinders e.g. a light board has a faster surface speed when wrapped around the impression cylinder than a thinner filmic substrate.

From 35 to 300 µm

To maintain a clear round dot without a smear and to guarantee a tight register accuracy, Gallus has introduced a web thickness compensation. The requirement of exchanging impression cylinders can now be a thing of the past. The option of servo overdrive enables the speed of the printing plate cylinder and die cut cylinder to be sped up or slowed down dependant on the actual web thickness and therefore surface speed. This new feature allows the Gallus EM 280 to run a substrate range of 35 µm to 300 µm without the need to exchange the counter impression cylinder. For the label printer with a keen eye on substrate diversity, the benefits are clear with an automatic increase in production efficiency.

Additional benefits possible with this new feature are that the print length can be modified at increments of 1/100 mm within plus or minus 1% of the format length. Because of such flexibility and control of the print length, re-register insetting is now also an easy and available option when working together with the register control system.

It is extremely important when standardizing the operations to know exactly what is happening within the printing press. Consequently, all the relevant web transport components have been equipped with a servo overdrive. The Gallus EM 280 can now incorporate this intelligent servo overdrive at the outfeed section creating a highly effective partnership with the existing servo driven infeed.

This ability to manage the exact tensions and therefore the exact behaviour of the substrate is critical if the press is to be truly positioned as a multi-substrate solution. The outfeed unit offers two web transport modes for the printer: The first is for a traditional tension control of a pressure sensitive material or stable substrate and the second presents an elongation factor for better control of those tricky monofoil variants. A further efficiency benefit is that all the substrate data can be recalled for future production runs with no need to again search for that optimum tension setting.

These features and benefits enabling special applications such as multi-web and leaflet insertion, further position the Gallus EM 280 as a multi-substrate “Best in its class” press. A statement endorsed by the ever increasing number of press sales and 2007 will see another record year.

Rob Wray
Product Manager
robert.wray@gallus.ch