



Ronald Reddmann

Latest Measurement Algorithms: Adhesive Monitoring for High Product Quality at Lower Cost

There are a number of things to consider when applying glue in perfect binding. To ensure that end products are of high quality, we have had very good experience with reliable adhesive monitoring. The completely revised LAK adhesive monitoring system constantly records adhesive application during perfect binding. This allows, for example, the applied quantity to be optimized, thus ensuring cost savings through lower glue consumption and reduced waste. LAK can also be used to check the milling quality by producing a book block without glue and viewing the milled image in 2D and 3D.

In order to meet the demands of the increasingly frequent thickness-variable production with its constantly changing adhesive applications, the previous system was completely revised. Today, not only is the latest laser and camera technology used, but the control algorithms for measuring the adhesive application have also been significantly improved in their accuracy.

As part of a field test, the system was intensively put through its paces at the major photo book manufacturer CEWE in Eschbach, Germany, which was already familiar with the predecessor system. „Because the glue application is permanently checked visually with the LAK, we can be sure that every product is optimally glued,“ explains Gerd Wild, Head of Digital Printing at CEWE. „We are therefore very satisfied with the new LAK, which is used in our Vareo perfect binder.“ Thanks to the complete integration of glue application control into the control system of the respective perfect binder, each book block, regardless of whether it is

a softcover brochure or a hardcover book block, is continuously checked and production is stopped immediately if the system detects an error.

You can use less glue

Often, too much glue is used in perfect binding. This can lead, for example, to undesirable glue penetration and/or poor opening behavior. With a reliable control system, you can use less glue without having to accept quality losses. And lower glue consumption naturally means more economical production.

How does it work? The data from the LAK is transferred to the operator monitor and the glue profile is clearly displayed with a color-differentiated 2D graphic or a 3D graphic. This setting makes it possible to optimize the application quantity by making fine adjustments directly on the monitor, reducing adhesive consumption to a necessary minimum and cutting costs – while maintaining the high quality of the end products.

The operator can react individually to errors

„With the many book-of-one productions in our company, the LAK is an important element in reducing complaints,“ says Gerd Wild. This is because the control system not only determines and adjusts the application quantity, but also reliably detects possible adhesive application errors such as accumulations, gaps and soiling in the zone wetted with adhesive, and the operator can react individually to errors or automate their handling. This guarantees higher quality of the books delivered, resulting in fewer complaints and satisfied customers.

And also important to know: Depending on the configuration and machine, the LAK monitoring system from Muller Martini can be used for adhesive application using glue pots or for the VPN nozzle – for both PUR and hotmelt applications.

Your

Ronald Reddmann

Product Manager Perfect Binding Systems Muller Martini