

## How Industry 4.0 supports the Corrugated Board Converting Industry



BAHMÜLLER as a system supplier for the corrugated board converting industry is more and more confronted with the increasing demand from customer side to handle smaller and more individual order sizes in addition to the typical long run and mass production products in the corrugated board manufacturing process as efficiently as possible. The basis for this is provided by the **digital product tracking tool** as a component of the new **BOXFLOW® Solutions** control generation, which enables each individual blank to be provided with product and quality attributes and tracked in the corrugated board printing and folding process. From production planning till final control in the corrugated printing, folding and converting lines, the entire process must be supported by a digital process and quality control system in order to provide in real time the necessary transparency and speed for the production of high-quality carton in small lot sizes.

On the way to the digital factory it is essential to measure, evaluate and, if necessary, record product and quality characteristics for each individual product during the entire manufacturing process. In order to be prepared for these requirements, BAHMÜLLER has developed a completely new control and HMI generation for its BGM INLINE systems as well as for the BAHMÜLLER TURBOX / JETBOX lines.

In addition, BAHMÜLLER invests in the development of **sensors and detection systems** for measuring specific quality features. An example is the new **DFS** (Diagonal Fold Monitoring System), which detects folding and quality problems in the process and thus

enables the **new control generation** to eject out of spec boxes fully automatically with the patented **UNIQUE EJECT** system.

BAHMÜLLER organizes expert workshops in close cooperation with its customers from the corrugated board converting industry to jointly define development projects and guidelines that reflect future market requirements.

These workshops generate a bidirectional exchange of experience and information, which is an important guarantee of success in the development and definition of prospective product and market strategies.

In order to transform the new possibilities of **Industry 4.0** into the highest possible utility for its customers in the corrugated board converting industry, BAHMÜLLER develops digital support and vision tools in the field of **augmented reality** together with specialized partners. With these new digital tools, BAHMÜLLER will in future be able to assist service and support cases as well as **online and data diagnostics** and **data reporting** in the manufacturing processes of its customers worldwide as effectively as possible.

Online support and augmented reality using data glasses are just two examples of digital tools with which BAHMÜLLER is preparing for the digital future in the Industry 4.0 environment in order to offer its customers improved and **faster worldwide service and support**.