Zünd and MindCUT Studio for digital textile cutting – a perfect match

With MindCUT Studio, Zünd offers a powerful, modular software suite for automated textile cutting. MindCUT Studio excels in flexibility and modularity.

It offers highly efficient nesting for plain fabrics as well as pattern matching and a seamless print & cut workflow for digitally printed textiles.

As is the case in many other industries, the proliferation of digital technology has had a profound impact on the textile industry. Consumers enjoy the affordability of tailor-made clothing and custom-made upholstered furniture. With more design and configuration options available, manufacturers are streamlining their production processes through automation and increased flexibility, thereby finding ways to successfully deal with increasing market pressures and ever shorter product life cycles. With MindCUT Studio, Zünd offers a modular software solution that largely automates digital textile cutting – from capturing materials, to creating production markers, and facilitating parts removal – in a well-designed, thoroughly integrated, comprehensive digital workflow.

In the first step of the process, a camera system captures the material, its exact position and dimensions. It makes no difference whether the fabric is patterned, plain, or digitally printed. For printed textile applications, an Over-Cutter Camera system captures all registration marks simultaneously. In case there are no register marks, the OCC can alternatively record the position of images based on printed outlines. If no cut data is available, there is an option to generate it automatically in MindCUT Studio. Material defects can be marked in advance to avoid being noticed only after cutting.

The system can also automatically recognize patterns and any distortions that may have occurred. When compensating for distortions, the dimensional accuracy of the parts and their exact placement on patterned fabric are precisely maintained. The software also provides pattern-matching options, regardless of whether the textile has a stripe pattern or is plaid.

MindCUT Studio has the ability to automatically import standardised data and process it. The system recognises both part and marker-based data. In addition, MindCUT Studio lets the user create individual markers. The software uses powerful nesting algorithms to lay out parts on the fabric for maximum material usage and automatically creates production markers.

For efficient parts removal, the operator must be able to quickly and unmistakably identify each piece. MindCut Studio provides color coding and parts information both projected onto the cut pieces and displayed on the monitor.

Zünd knows how to build robust turnkey cutting solutions with state-of-the art specialized tooling, sophisticated vision systems, and highly efficient digital workflows. This empowers the user with ultimate flexibility when it comes to cutting applications, choosing materials, and controlling delivery times. MindCUT Studio Production contains all essential functions for the different processing phases in digital textile cutting. With a variety of additional options, the software can be tailored to individual needs. For more information on MindCUT Studio, visit www.zund.com.◆