

AUTOMATING THE TEXTILE INDUSTRY ONE STITCH AT A TIME

Fully automated sewing and cutting for wide-format print finishing.
One system, one operator, no manual handling between cutting and sewing.



REDUCES UP TO 80% OF MANUAL
HANDLING, LOWERING PRODUCTION
TIME AND COST

PRECISE SEWING AND CUTTING IN
ONE GO, FULLY AUTOMATED AND
DIGITALLY CONTROLLED

JUST-IN-TIME MANUFACTURING
DIRECTLY FROM ONE OR MORE
TEXTILE ROLLS

SEWING AND CUTTING COMBINED

AUTOMATE YOUR WORKFLOW

In conventional finishing, up to 80% of production time is manual handling – loading, unloading, reframing, aligning. FASTSEWN combines flatbed cutting and sewing in one automated system. Bringing two departments together saves valuable floor space, reduces material handling and minimizes errors.

UP TO **80%**

less manual handling
between operations

6-12

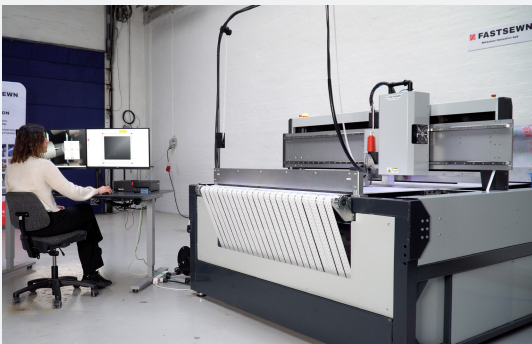
people matched by one
operator*

12-14

months ROI on a single
shift operation*

UP TO **100%**

automated sewing and
cutting of 2D shapes



PATENTED MCT™ TECHNOLOGY

The patented MCT™ process enables fully automated sewing and cutting of 1, 2 or multiple layers of textile. The system uses an industrial-class digital Juki sewing head, combined with a powerful, sealed CO₂ laser with flying optics or high-precision oscillating knife tool for cutting.

LESS HANDLING - MORE PRODUCTION

FASTSEWN reduces manual textile handling to nearly zero. After sewing, the system laser cuts the textiles in the correct position, which ensures the highest accuracy. Capacity is driven by the machine, not by the number of operators on the floor.

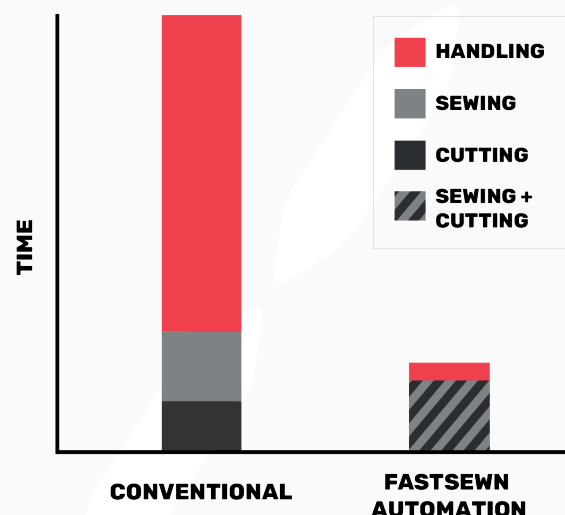
ONE OPERATOR - MULTIPLE MACHINES

One FASTSEWN operator can run multiple machines and match the output of 6–12 conventional operators*, with minimal training and no sewing skills required.

THE NEXT GENERATION OF SEWING AUTOMATION

- Sewing and cutting combined in one system
- No frames or manual re-positioning
- No manual loading or off-loading of parts
- One-piece flow or batch production
- Continuous production directly from stock rolls
- CNC-controlled operation
- Consistent precision and repeatable quality

*Application- and production-dependent.



APPLICATIONS

AUTOMATED SEWING AND CUTTING

From straight lines to complex curves and internal seams, FASTSEWN sews and cuts complex 2D shapes in one automated process. No need for pre-cutting, frames or manual loading/off-loading - FASTSEWN allows for a fully automatic process.

FULLY AUTOMATED SEG PRODUCTION

- Automated sewing and cutting of keder
- Processed directly from rolls
- 200-degree rotation of the keder dispenser, allowing contoured graphics or even full circular SEGs
- Vision registration from top and below
- Automatically generated curves, pull tabs and sewing lines integrated with e.g. Caldera PrimeCenter workflow
- AI-enhanced motor monitoring and stitching control



TENSION BANNERS

90-100% automated ●●●●●●●●●●



SECURITY GATE COVERS

90-100% automated ●●●●●●●●●●



CUSTOM PILLOWS

80-90% automated ●●●●●●●●●●



UPHOLSTERY / AUTO

10-20% automated ●●●●●●●●●●



HVAC

70-80% automated ●●●●●●●●●●



BAG FILTERS

90-100% automated ●●●●●●●●●●



DEFENSE APPLICATIONS

10-20% automated ●●●●●●●●●●



CUSTOM BAGS

50-60% automated ●●●●●●●●●●

Illustrations and percentages are indicative; may vary depending on the specific application, production method and setup.

READY TO DISCUSS YOUR APPLICATION? LET'S TALK

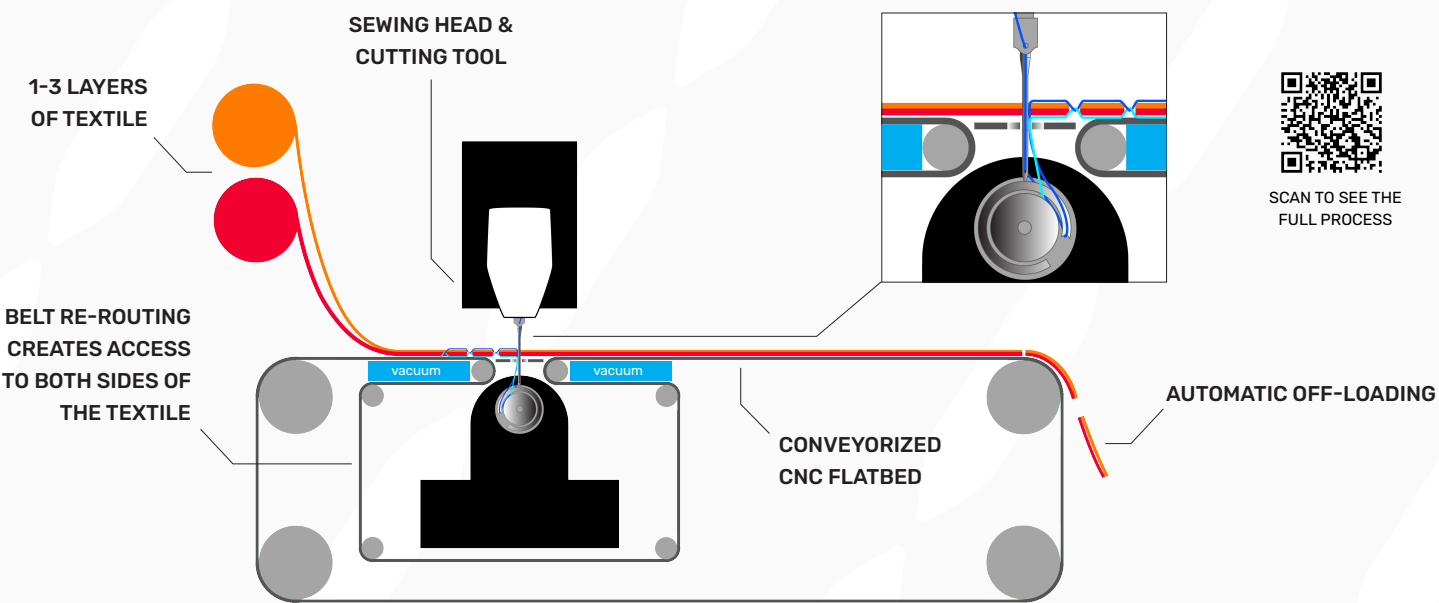


WHAT IS MCT™?

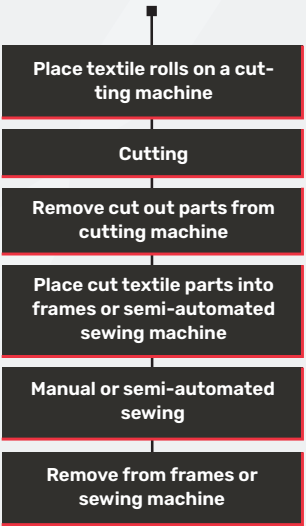
MOVING CAVITY TECHNOLOGY

FASTSEWN is built around our patented Moving Cavity Technology (MCT™) – a conveyORIZED CNC flatbed with a specialized vacuum hold-down system. Pulleys and rollers create a movable cavity, giving access to both sides of the textile without moving or lifting it. The textile stays securely in place without frames or manual repositioning.

MCT™ enables precise lockstitch sewing and cutting of 1–3 layers without interfering with the carrier belts, while laser fumes are extracted below to prevent backside residues. The sewing and cutting processes are digitally controlled with multiple high-precision servo motors. This ensures precise alignment between stitching and cutting and enables highly accurate, repeatable production.

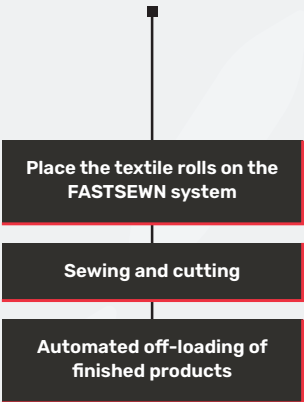


CONVENTIONAL METHOD



SEMI-AUTOMATED

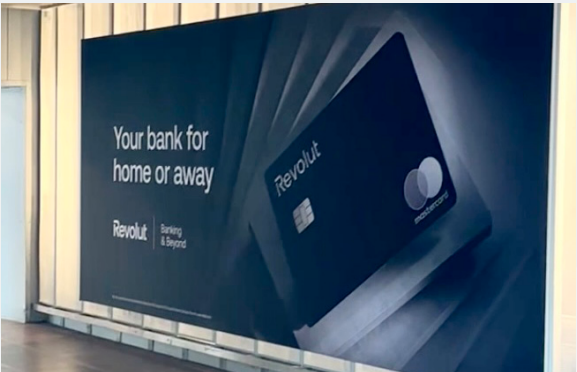
FASTSEWN



AUTOMATED

HIGH COMPLEXITY

MCT™ also makes it possible to automate complex contours as well as internal sewing lines. FASTSEWN automatically indexes from the roll-off unit enabling the production of graphics longer than the table.



INTEGRATION

WORKFLOW

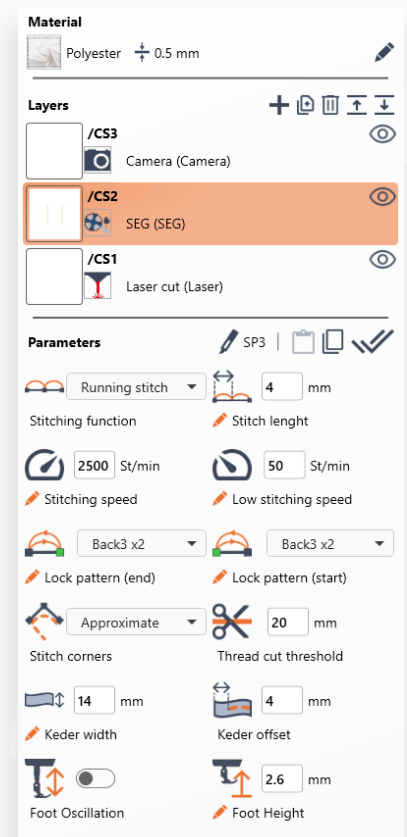
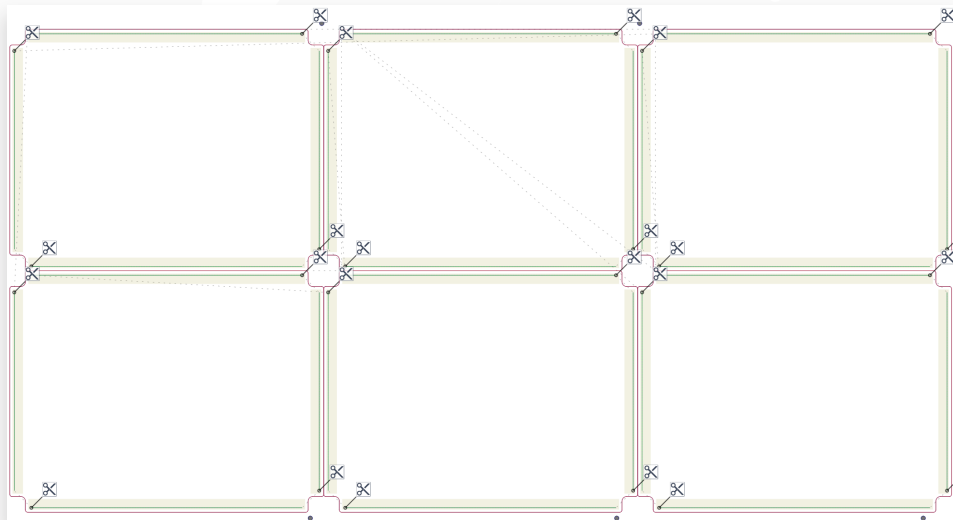
- Work within your existing prepress workflow
- Integrate with e.g. Caldera PrimeCenter for streamlined production
- Automatically create SEG graphics, sewing and cutting lines from production files, generate curved corners with consistent accuracy and add optional laser-cut pull tabs directly to the workflow
- Convert files into FASTSEWN-ready jobs in seconds
- Send jobs directly to FASTSEWN via hot folders
- Manage jobs using QR codes and barcodes
- Control top- and bottom-side vision registration through FASTSEWN Designer
- Save production parameters for specific materials
- Build a consistent, repeatable production library
- AI enhanced support tools for quick diagnostics and operator guidance



THE SOFTWARE

FASTSEWN DESIGNER

FASTSEWN DESIGNER is our fully developed software platform, built around industry-standard workflows and flexible job management. Jobs can be accessed via QR codes or barcodes, depending on preferences. Production parameters can be configured, saved and linked to specific materials, creating a consistent and repeatable production library.



SPECIFICATIONS

MACHINE SIZES	FS-18	FS-33
WORKING AREA	72 x 72 in / 1.8 x 1.8 m	130 x 130 in / 3.3 x 3.3 m
SEWING HEAD	Digitally controlled Juki sewing head; up to 2,500 st/min; 10 m/min	
STITCH TYPE	Lock stitch	
SEG DISPENSER TOOL (OPTIONAL)	200 degrees of rotation - enabling full circle sewing	
LASER TOOL (STANDARD)	150W sealed CO2 laser with flying optics; up to 1 m/s	
ADDITION TOOL (OPTIONAL)	Possibility for a 3rd tool, such as oscillating or rotary knife	
VACUUM	6 x 1kW vacuum pumps; 80 cm action area + vacuum zoning	
REGISTRATION	Dual-vision system supported by line scanner	
ROLL-ON UNIT	Caron automatic unwinder	
SOFTWARE	FASTSEWN Designer	

Specifications can be adjusted according to customer requirements and preferences.
Information is subject to change without notice.

THE FASTSEWN TEAM

WE ARE READY TO TALK



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