

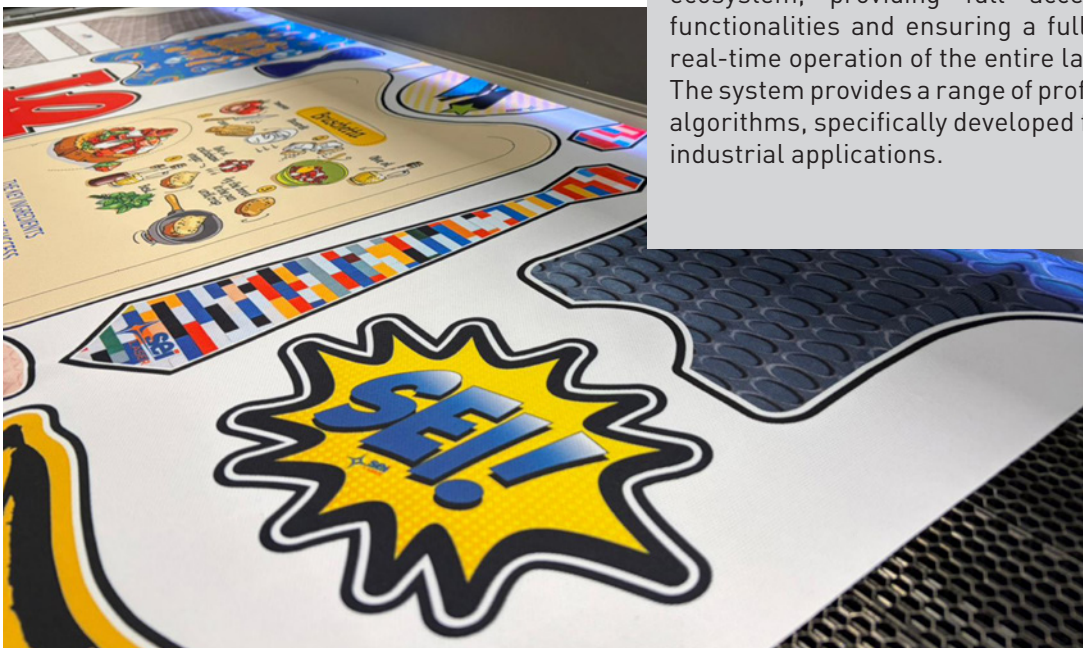
THE ULTIMATE SEI VISION SYSTEM: L-SCAN

L-SCAN is an innovative machine vision system designed and developed by SEI Laser for on-register processing of materials available for SEI laser systems.

Based on the automatic recognition of fiducial marks, graphic elements, edges, printed areas, or pre-processed sections, the system enables laser machines to perform operations perfectly synchronized with predefined references, ensuring flawless execution even on flexible or irregular materials.

Positioning, corrections, alignment, rotation, and tracking of distorted patterns or graphics are managed and applied in real time during the processing phase.

Installation is carried out: at the entrance of the processing area, where the system captures images of the material as it advances toward the processing area → **Execution On The Fly**



KEY FEATURES:

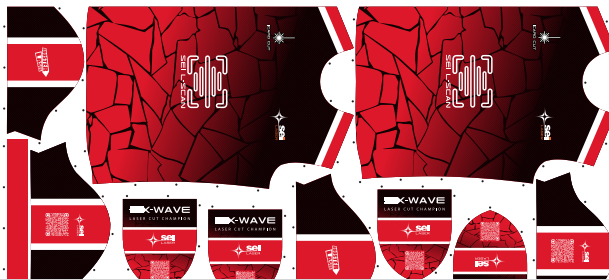
The vision system integrates a high resolution 200 DPI (127 μm) linear sensor, ensuring extreme precision even on large-format materials. Its high acquisition speed allows seamless operation within the machine cycle, without impacting productivity. Furthermore, the configurable RGB LED lighting system provides consistent, focused illumination, guaranteeing reliable performance across diverse of material type and varying ambient light conditions.

The compact and robust bar structure, combined with optics and a lighting system designed to operate just a few centimeters from the material, simplifies integration and maintenance.

This configuration virtually eliminates the need for calibration or operator adjustments.

The SEI CAMERA control software fully integrates the vision hardware into the ICARO ecosystem, providing full access to core functionalities and ensuring a fully automatic, real-time operation of the entire laser system. The system provides a range of profile distortion algorithms, specifically developed for dedicated industrial applications.

MAIN APPLICATIONS



Contour detection

The material is scanned and the cutting profiles are generated directly from the image.

Main advantage: it does not require a pre-loaded cutting file.

Cutting with Reference Markers

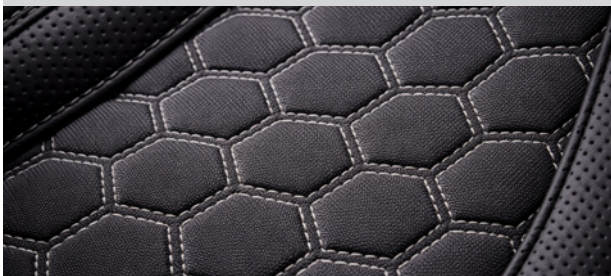
The acquisition of positioning marks within the printed material. These marks are then compared with the given layout to ensure the needed distortion for the required cut.

Advantage: the machine processes all the profiles included in the file as internal cuts, trims, notches or reference cuts.



Pattern recognition

Embroidered fabric, embossed materials and printed patterns can be recognized allowing synchronized cutting processes tailored to specific strategies.



File sequence workflow management

By reading ID codes on-the-fly, L-SCAN enables a seamless transition between different jobs, driving the machine toward a fully digitalized and uninterrupted production process.

