Perfect registration

i-cut

The i-cut® vision control system and i-script™ workflow allow die-less cutting contours to perfectly match printed images.

i-cut® vision

Printed signs and displays can get custom-shaped right on the finishing table. Contour cutting follows the graphics exactly as created by the printer.

Often with other methods, slight distortions between printed graphics and contour cut may cause unacceptable results. With the *i*-cut® vision system, you can guarantee a cut contour that perfectly matches the printed graphics.

i-cut® vision registration

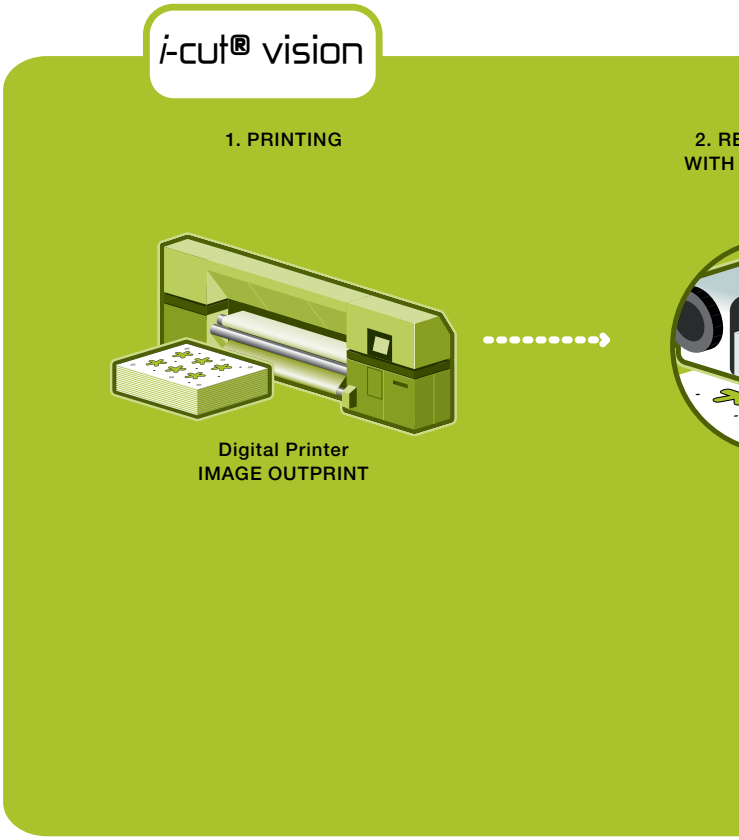
The *i*-cut® vision registration system is integrated into the tool head. First, a camera measures actual dimensions and positions on the actual printed result. Then, finishing is adapted to the shape of the graphics.

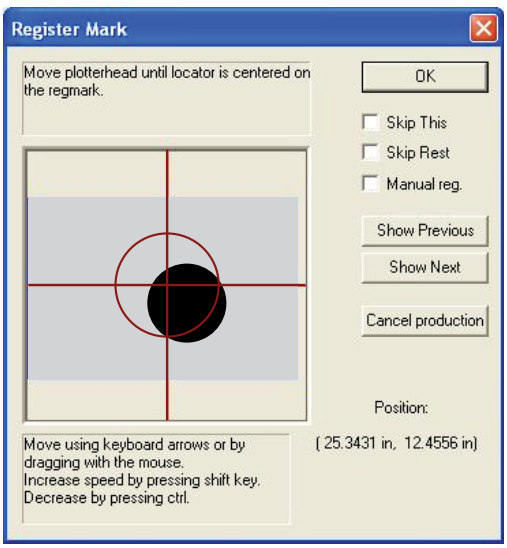
The system works with strategically placed registration marks – the dots – that are printed along with the graphics and that are used to align the cutting path.

Dynamic compensation

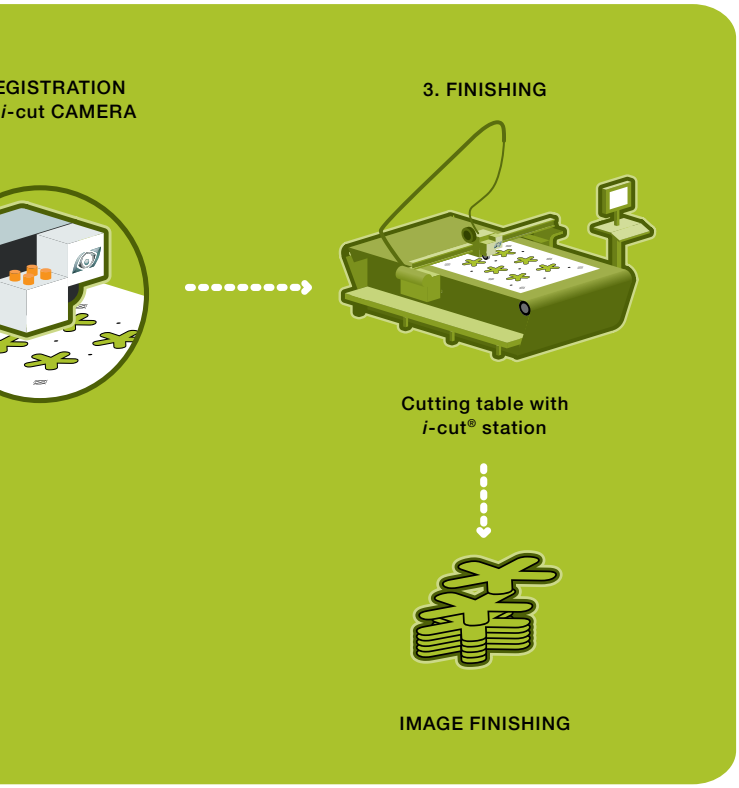
During the finishing operation, the *i*-cut® camera optically locates and analyzes the position of the registration marks. Not only is registration corrected, but also *i*-cut vision-pro is capable of automatic and dynamic compensation of any dimensional changes, distortions or material variations, like shrinkage or stretching.

The *i*-cut® software automatically fine-tunes each cut contour for perfect cut-to-print. The *i*-cut® is a fail-safe, patented and proven registration method that guarantees the highest cut quality on runs from a few to thousands, and from small shapes to large sizes.





i-cut® registration mark optically checked and adjusted:
i-cut® automatically locates registration marks, compensates for material and print distortions and cuts the job.

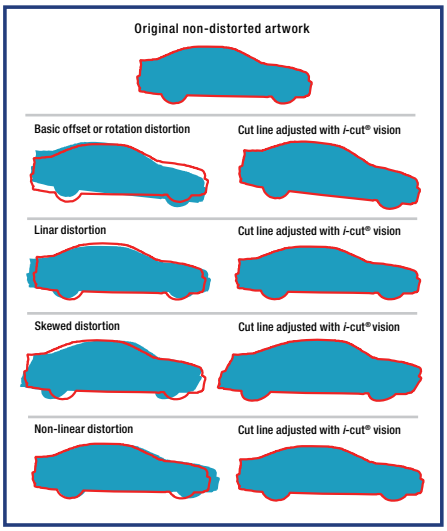


The *i*-cut® camera

Heavy duty industrial type CCD camera, proven in Custom designed, CNC machined housing with built in LED light source, specifically designed for precise and reliable recognition of printed registration marks on a wide range of substrates and printing methods.

- CNC machined aluminum housing
- Custom engineered, industrial LED light source
- Rugged design for uninterrupted use in industrial production environments
- Industrial type, CCD camera
- Integrated, highly flexible coax cable and power cable
- Reliable capturing of registration marks and barcodes on the widest range of substrates and printing methods
- Integrated with high-speed, industrial video frame grabber PC card

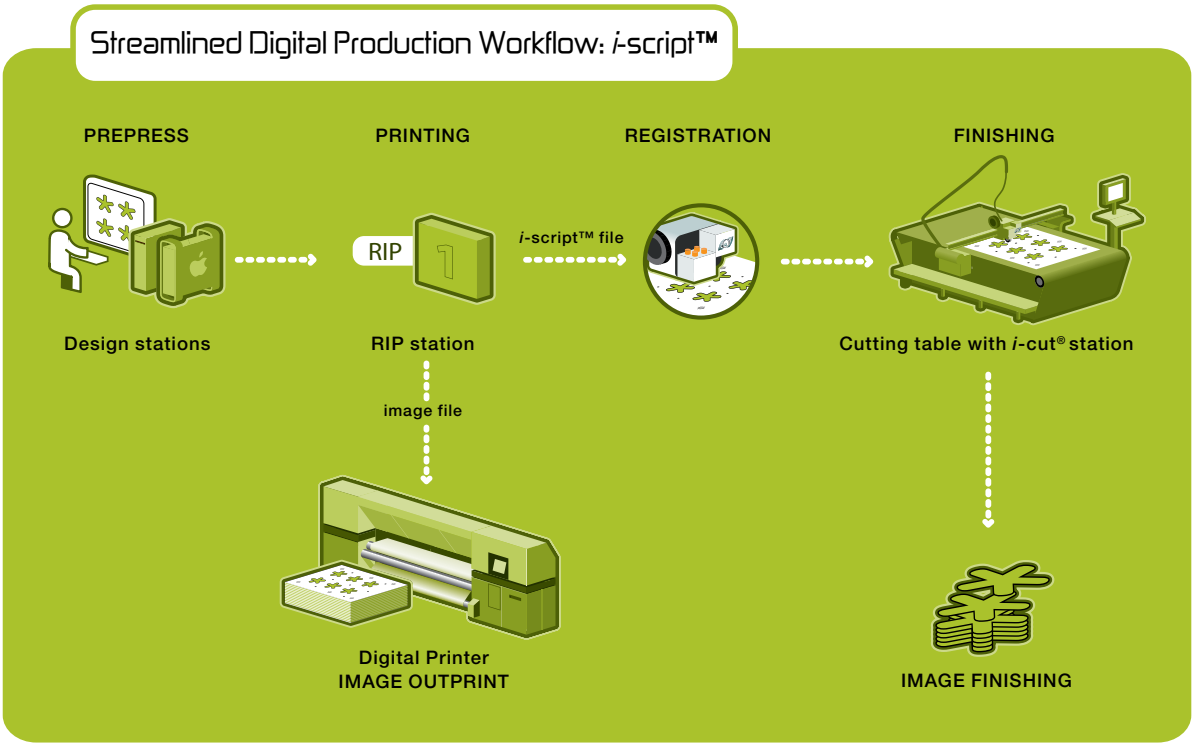
i-cut® camera



i-cut® vision optimizes each cut contour for each graphic on each sheet
i-cut® vision pro is capable of automatic and dynamic compensation of any dimensional changes, distortions or material variations, like shrinkage or stretching.

Streamlined digital production workflow: *i*-script™

The *i*-script™ workflow enhances finishing productivity. It connects the separated routes of the graphic design and the finishing data. It is the interface between the digital print control and RIP software, and the *i*-cut® digital finishing system.



With *i*-script™, the operator does not have to re-register the tool head for each printed file on one sheet or roll of material. The *i*-script™ standard allows digital print control software to generate and communicate key finishing data to the *i*-cut. Setup time can be reduced to just placing the printed material on the cutting table and pressing the 'Run' button.

The complete cutting file for an entire sheet, including cutting contours, nesting coordinates and paneling dimensions, is automatically generated with *i*-cut registration marks and a unique barcode.

To begin the finishing process, the *i*-cut camera reads the job number barcode, retrieves the corresponding cutting and layout data, and automatically moves to the registration marks for measuring. It is then able to automatically align the cutting paths to the graphic objects of the entire layout.

Integrated into a digital production system, *i*-script™ completely automates cutting and trimming for a wide range of flexible as well as rigid materials. It is particularly capable of finishing materials from the rapidly emerging class of large format flatbed inkjet printers, as well as other high performance roll-fed digital output devices.

Major front end and printing manufacturers have integrated *i*-script™ into their RIP software.