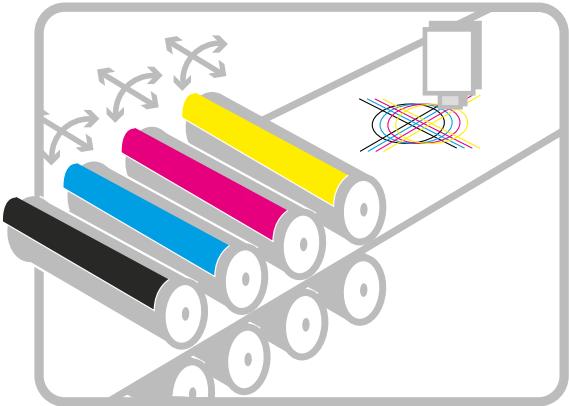


m R C - 3 D



REGISTER SYSTEM

REGISTER CONTROL

REGISTER SYSTEM

The **mRC-3D** is a fully automatic color and cut-off register system for web off-set presses. Two digital camera's with built-in microprocessors provide real-time data processing of the measured data. Because of its 3D functionality the 3D scanner is capable to accurately measure the printed micro-marks independent of the focal distance and the deformations in the paper web.



Applications:

- Color register in circumferential direction from printing unit to printing unit (Unit to unit).
- Color register of all colors in all directions relative to each other (Color to color).
- Side laying the entire web using the web guide system (Ink guide).
- Cut-off register.
- Side laying a web section using a turner bar.
- Correcting the lateral growth of the web downstream of the printing units compared to the web upstream of the printing units (Fan-out).
- Plate cocking control.

What are the unique features?

- **mRC-3D** measures accurately independent of the focal distance and paper deformation.
- Camera and data processing combined into one small component.
- Innovative optical technology using LED lighting.
- Instant detection of register marks at start-up by a measuring area with a width of 60mm.
- VPN connection for remote diagnostics.
- 3 functions in 1 scanner: color register, cut-off register and sidelay register.
- Easy to operate by means of a touch screen.
- Optional motorized scanner for lateral pre-setting.
- Optional motorized scanner for corrections on fan-out and plate errors.
- Optional automatic cleaning of optic by driven foil (AIMS).
- Optional cleanable optic by removable glass (IMS).

What are the advantages of the **mRC-3D**?

- Less labor intensive thanks to automatic control.
- Consistency in measuring and controlling, also in case of web flutter, waves and creases in the paper webs.
- Less waste because the different colors are automatically brought into register while starting up.
- Consistent quality, independent of job, printing company or press.
- Reliability due to quality, simplicity and intelligent software.
- Easy operation using a touch screen.
- Easy to expand with Intelligent Quality Management for quality reporting.

Options:

- Anti-embossing control: all printing units are controlled such that ink build-up on the blankets is reduced and the wash frequency can be minimized.
- Automatic waste gate control if an error is greater than a preset value.
- Progressive control predicts and corrects for errors due to speed change before they occur.
- Dynamic folder control calculates the stretch of the paper and extrapolates this as additional error behind the cut-off register camera's.
- Front-to-back control ensures that the front of the printed web is brought into register with the back of the printed web.
- Compensator or phasor control: a compensator roller between the printing units is driven to enable large errors to be compensated quickly.
- Motorization package for the circumferential and side-lay registers.

Technical specifications **mRC-3D**

Max. color register error:	± 0.275 in.
Max. cut-off register error:	± 3.94 in.
Max. side-lay register error:	± 1.0 in.

Register marks:

ID:	tiny	small
Shape:	square	square



Mark size:		
Min.:	0.004 x 0.004 in.	0.012 x .012 in.
Max.:	0.012 x 0.012 in.	0.024 x 0.024 in.
Clearance:	0.2 x 0.2 in.	0.28 x 0.28 in.
Max. colors:	6	6

Range:

Min. side-lay:	± 0.06 in.	± 0.06 in.
Min. circumferential:	± 0.06 in.	± 0.06 in.
Max. side-lay:	± 0.1 in.	± 0.2 in.
Max. circumferential:	± 0.12 in.	± 0.28 in.

Camera:

Maximum number of measurements:	40 per second
Light source:	LED 130 lumen /Watt
Lateral reading range:	2.4 in.
Focus depth:	± 0.8 in.
Max. web speed:	59 ft/s
Minimum mark density:	0.3 D
Dimensions	5.5 in. * 3.2 in. * 1.6 in.
Weight (without IMS or AIMS)	8.11 oz.
Mounting on bar	Symmetric

Motor-bar:

Motor speed	6.5 ft/s
IP code	IP65

Accuracy:

Color register:	± 0.0004 in.
Cut-off register / sidelay register:	± 0.001968 in.

AIMS:

Refreshments cassette	150
Lifespan	Appr. 9 months, 150 refreshments

Used Q.I. Press Controls owned patented technology:

Register & Ribbon Control: US6,108,436; EP0850763; 2354230;
US6,604,463; NL2009786
AIMS: NL2008732

Specifications may change without further notice.

