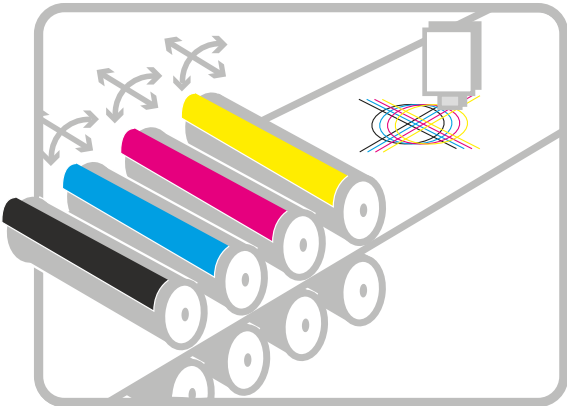


m R C - 3 D



REGISTER SYSTEM

REGISTER CONTROL

REGISTER SYSTEM

The mRc-3D is a fully automatic colour 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:

- Colour register in circumferential direction from printing unit to printing unit (Unit to unit).
- Colour register of all colours in all directions relative to each other (Colour to colour).
- 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: colour register, cut-off register and sidelay register.
- Easy to operate by means of a touch screen.
- Optional motorised scanner for lateral pre-setting.
- Optional motorised 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 labour 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 colours 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 minimised.
- 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.
- Motorisation package for the circumferential and side-lay registers.

Technical specifications mRc-3D

Max. colour register error:	± 7.0 mm
Max. cut-off register error:	± 100 mm
Max. side-lay register error:	± 30 mm

Register marks:

ID:	tiny	small
Shape:	square	square
		
Mark size:		
Min.:	0.1 x 0.1 mm	0.3 x 0.3 mm
Max.:	0.3 x 0.3 mm	0.6 x 0.6 mm
Clearance:	5 x 5 mm	7 x 7 mm
Max. colours:	6	6

Range:

Min. side-lay:	± 1.5 mm	± 1.5 mm
Min. circumferential:	± 1.5 mm	± 1.5 mm
Max. side-lay:	± 2.5 mm	± 5.0 mm
Max. circumferential:	± 3.0 mm	± 7.0 mm

Camera:

Maximum number of measurements:	40 per second
Light source:	LED 130 lumen / Watt
Lateral reading range:	60 mm
Focus depth:	± 20 mm
Max. web speed:	18 m/s
Minimum mark density:	0.3 D
Dimensions	140 mm * 80 mm * 40 mm
Weight (without IMS or AIMS)	0.230 kg
Mounting on bar	Symmetric

Motor-bar:

Motor speed	2000 mm/s
IP code	IP65

Accuracy:

Colour register:	± 0.01 mm
Cut-off register / sidelay register:	± 0.05 mm

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.

