



doc\_4

Intelligent and flexible register control



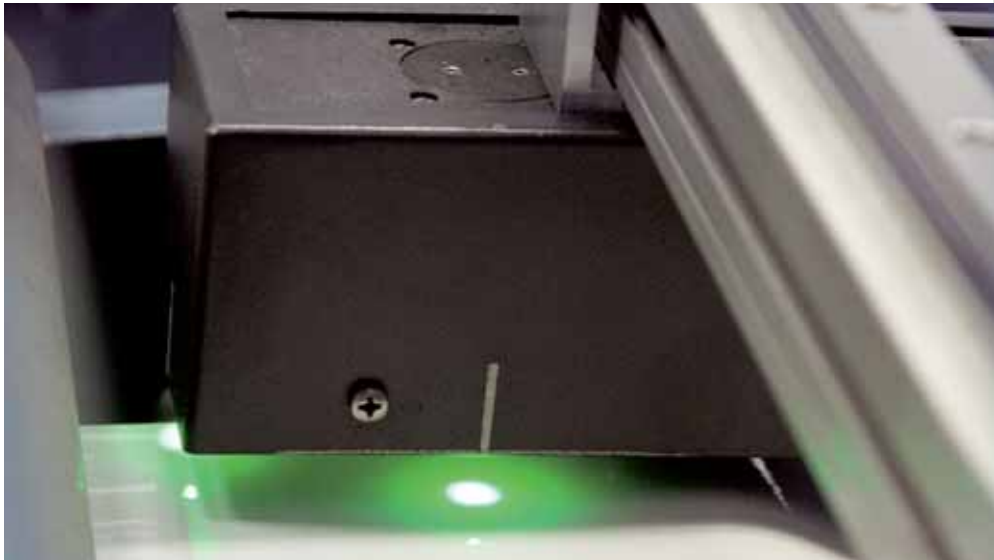
# register



**The register under control:  
eltromat is your expert in register control systems**



- ✓ QUICK TO PRINT
- ✓ REDUCING PAPER WASTE
- ✓ INCREASING PRODUCTIVITY
- ✓ MINIMIZING COSTS
- ✓ ASSURING AND IMPROVING QUALITY
- ✓ ELIMINATING COMPLAINTS
- ✓ EASING WORK LOAD
- ✓ INCREASING PROCESS RELIABILITY



# doc\_4



doc\_4

Offset, inline flexo, hybrid printing processes

” Really amazing to see how the register controller brings the colours together exactly as needed – a real time and money saver, especially for problematic and expensive materials. “

*Purchaser*



Electronic register control systems are indispensable for improving quality on web fed presses. Paper waste can be much reduced and set-up times saved thus improving the efficiency of every printing press. The **eltromat register control system doc\_4** has been specially designed for offset printing but can also be used in printing

presses employing other techniques (hybrid machines) and inline finishing units. It is based on tried and tested technologies of the well-known **eltromat** register control. Length and side register of the printing and finishing units are measured and controlled automatically with no need for the operator to act. While the current job is still run-

ning, the data of up to 8 future jobs can already be defined. Finishing equipment, e.g. perforators or folders, can also be controlled. The system can be combined optionally by a web viewing and/or colour control module to become a high-end Print Quality Control System.





**Quick to print:  
highly accurate and fully automatic!**



**Intuitive operation**

via the TFT touch\_screen makes operation simple and quick. The menu-driven system ensures correct and quick job configuration or correction if needed.

**Highest flexibility**

The register marks can be oriented parallel or transverse to the web direction. Measuring can be done by several cameras arranged between the individual printing units or after the last printing

unit. Up to 10 colours are controlled on one side of the web or in any combination of front to back side (standard equipment).

**For distinct demands**

The register marks are reliably measured even with low-contrast colours and most different materials. Paper, cardboard, labelling material, opaque or transparent films are fields of application.



**Absolute precision**

The absolute measurement of the colour register by colour CCD cameras ensures utmost accuracy even with colours that are difficult to be measured by conventional systems. The top to bottom register is also measured absolutely.

Up to 10 finishing units can be reliably and safely controlled by separate cameras. Also for this purpose mini register marks are used.

**Applications** web offset printing  
 inline flexo printing  
 hybrid printing  
 label printing  
 web – web  
 web – sheet  
 web – fold

**Operation** TFT touch\_screen

**Functions**

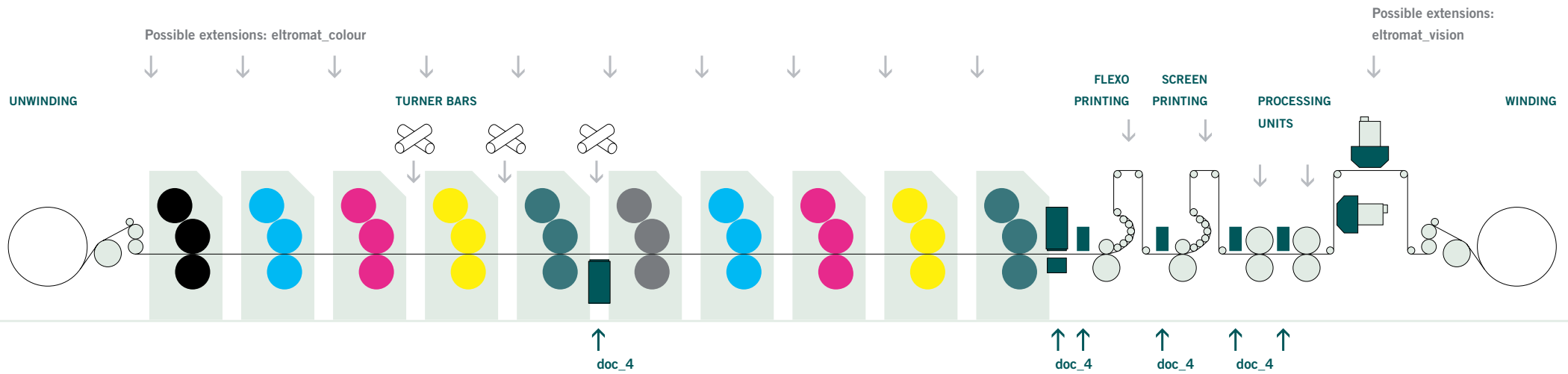
- camera-based register control
- mini register marks
- automatic mark recognition
- constant and rapid measurement of register deviations
- up to 6 measuring cycles/sec
- absolute measurement of top and bottom side and front to back
- recognition of every register mark also with low-contrast colours
- safe compensation of web movements and web fluttering
- free choice of camera positions
- up to 10 colours controllable on one web side
- up to 10 web/cylinder control units for processing units

**Service** remote diagnosis Modem, ISDN, Internet comes as standard

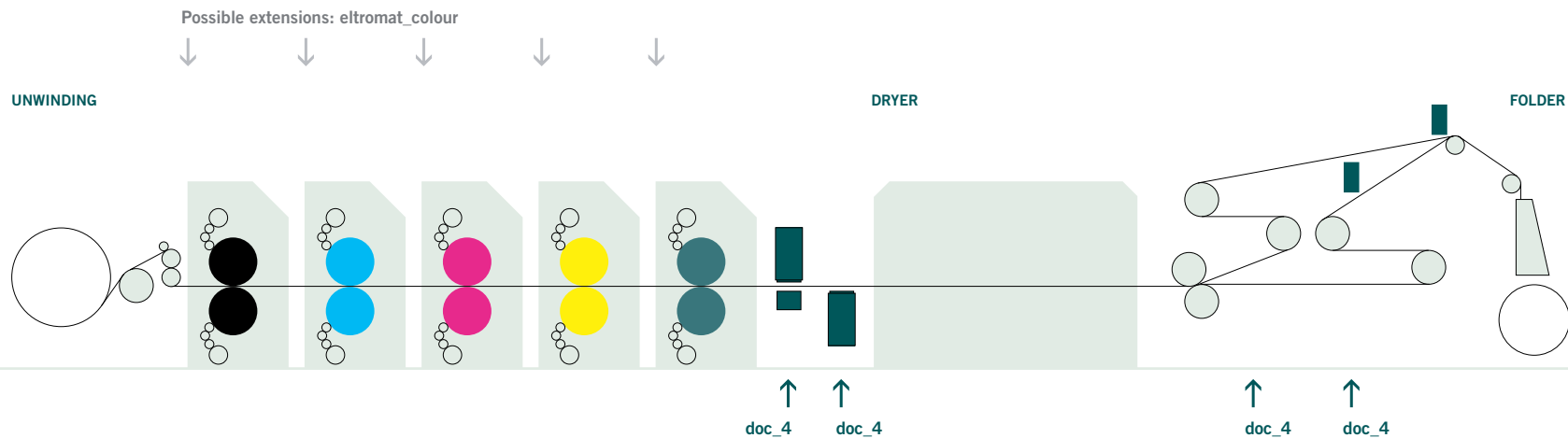
**Extension** as desk version for offcon@4, revicon\_4, corecon\_4

**Schnittstelle** eltromat\_flow

# Narrow-web offset printing with doc\_4



# Commercial web offset printing with doc\_4



**Made in Germany:**

**eltromat** – since 1960 we have developed and produced control equipment to optimise printing processes. We see ourselves as an innovative partner of machine manufacturers and printers. Printing plants throughout the world count on **eltromat**, because our systems reliably fulfil even the highest demands of efficiency and quality. Covering all the major printing and processing applications, gravure, flexo, offset or hybrid printing – **eltromat** can be applied wherever importance is attached to quality, service and flexibility. Our modular technology provides new possibilities: applications, starting with drive technology through image transmission, register control, colour control to complete inspection systems as well as simple, economic upgrades.

Please feel free to ask about reference installations.

**Register control by doc\_4 in narrow-web offset printing featuring:**

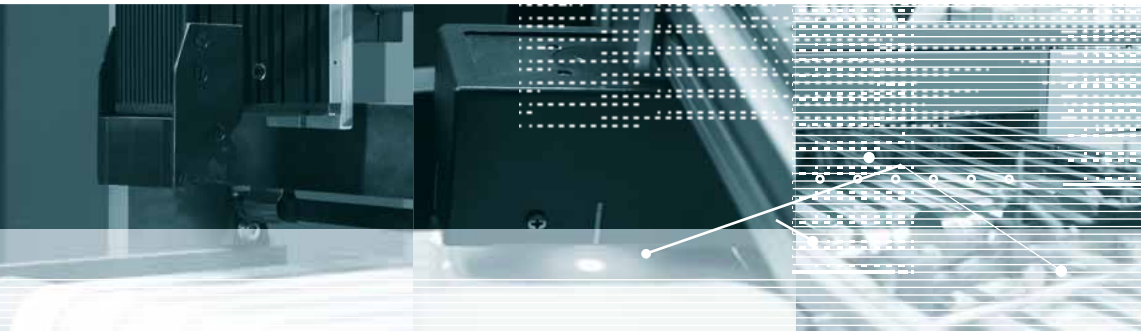
- flexible turner bar positions
- up to 10 colours on one side as standard
- large number of special colours
- great substrate variety
- variable formats
- inline processing  
(perforating, punching, embossing)
- special printing units  
(flexo, gravure, screen printing)
- web - sheet, web - fold, web - web
- frequent UV curing
- up to 15 m/sec
- variable positions of measuring cameras

## Highest print quality with know-how

**Register control by doc\_4 in commercial web offset printing featuring:**

- blanket-to-blanket principle
- fixed printing combinations
- fixed format
- web - fold, less frequent web – web
- mostly heat-set printing
- up to 16 m/sec
- measuring camera in front of the dryer

drive	register	vision	colour	flow
	dgc_700 dgc_750 dgc_750_2 drc_200 <b>doc_4</b>			



We provide worldwide service.

**eltromat GmbH**  
Herforder Straße 249–251  
33818 Leopoldshoehe  
Germany

T +49 52 08 987-0  
F +49 52 08 987-649  
info@eltromat.de  
www.eltromat.de

**Locations**  
USA  
France  
United Kingdom  
Spain  
Italy

**Agencies**  
Asia  
India  
Finland

**eltromat GmbH**  
Baumeisterallee 25  
04442 Zwenkau  
Germany

T +49 34 20 35 85-0  
F +49 34 20 35 85-113