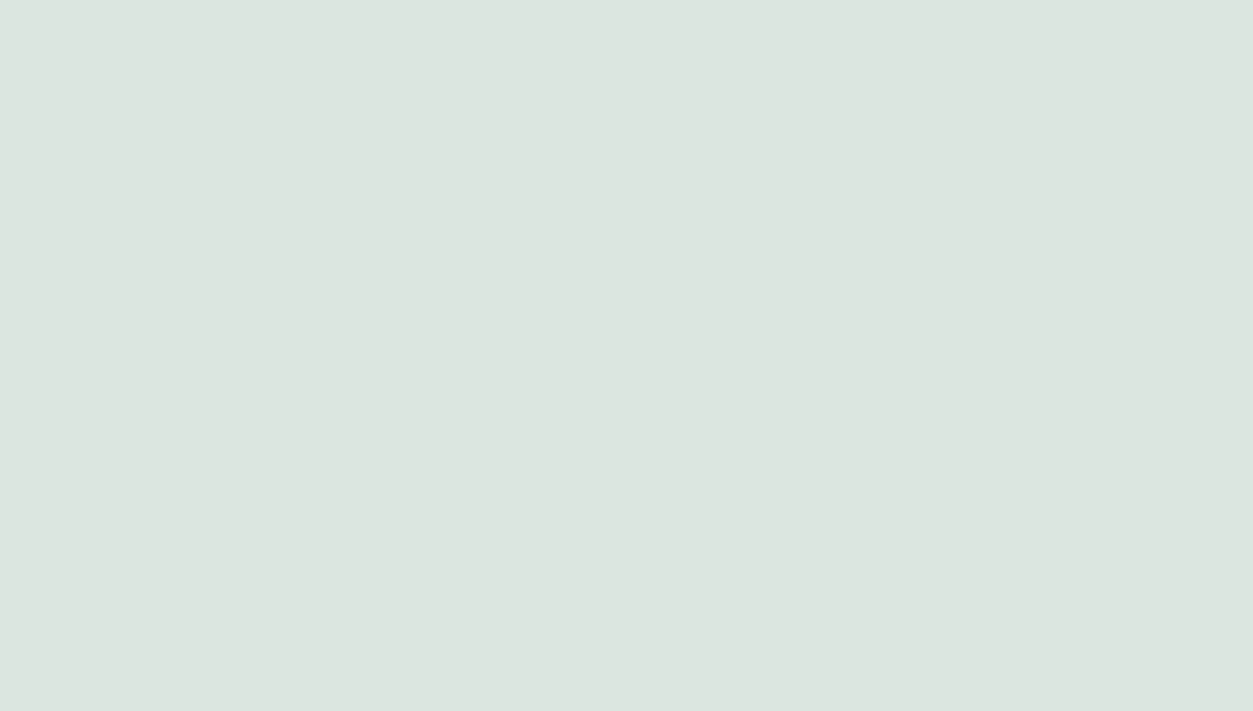




integral

Integrated Control Systems



eltromat – since 1960 we have developed and produced control equipment to optimize printing processes. We are an innovative partner of machine manufacturers and printers. Our products are installed in many printing companies that have high demands regarding efficiency and quality.

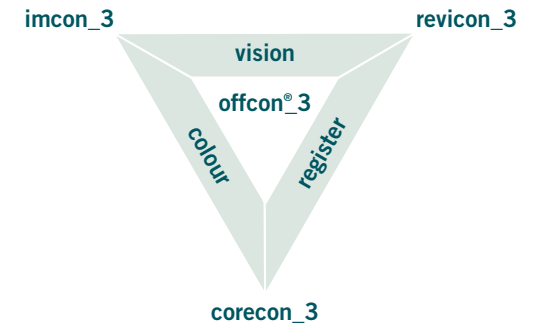
eltromat products are applicable to offset, as well as flexo, rotogravure and screen printing processes. A modular concept allows installations of drive systems, viewing systems, into register, colour control and complete inspection systems. Upgrades are easy and great value.



integral

INTEGRATED CONTROL SYSTEMS FOR REGISTER, VIEWING AND COLOUR

Register control, web inspection and ink fountain control - integrated for web fed printing, is the result of modular system technology made by **eltromat**. Any combination of modules is possible. With these *PrintQualitySystems* printers world-wide are increasing their productivity, whilst costs are drastically reduced. Up to 90% saving of set-up time for ink fountain and register setting is possible. Furthermore, a high quality standard is obtained, due to continuous print inspection.



- QUICK TO PRINT
- MINIMIZING WASTE
- IMPROVING QUALITY
- PREVENTING COMPLAINTS
- EASY TO OPERATE

= INCREASING PRODUCTIVITY
= REDUCING COSTS

The systems provide simple intuitive operation via *touch_screen* and *touch_frame* (optional), as well as high speed processor technology. A modem for remote diagnostics is installed as standard.

integral →	offcon®_3		
	register	vision	colour
→	imcon_3		
		vision	colour
→	corecon_3		
	register		colour
→	revicon_3		
	register	vision	



register

QUICK TO REGISTER

Electronic register controls are indispensable for improving quality on web fed presses. These systems minimize waste and save set-up time, as well as contributing to a higher overall efficiency of the printing press.



high_precise

Separate measuring cameras make highest accuracy possible by absolute measurement of the colour register marks – even with colours which are hard to measure using conventional systems. The front to back side register will also be measured absolutely.

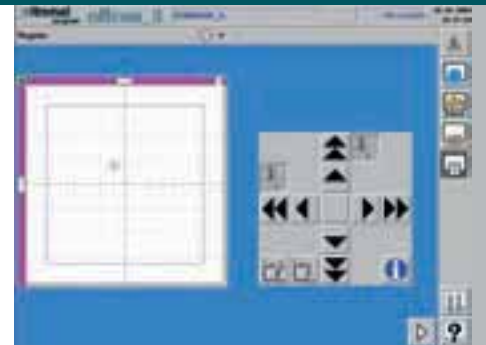
high_intuitive

The setting of length and side register will be supervised as well as controlled precisely by the touch_screen, which is menu-guided.

high_flexible

Independent of the long axis of the web, our system accepts nearly all angles of mark pattern. The register measurement can be done with several cameras between single printing units or after the last one. Up to 10 colours on one side of the web, or any combination of front and back side will be measured (standard equipment).

For further information please refer to the **eltromat_register** brochure



vision

SEEING WHAT'S IMPORTANT



Today, electronic web viewing is essential for the improvement of quality in web fed printing. **eltromat** has been supplying vision systems for more than 20 years. Today, we offer customized solutions for web viewing and inspection for all printing processes.



integral
vision
Offset printing, Letterpress printing, Flexo printing

high_quality

A special arrangement of the strobe tube guarantees absolute homogeneous illumination of the image.

high_resolution

We are using high-resolution cameras, that allow fast and precise image reproduction, of the highest possible quality.



high_intuitive

A well structured menu allows easy operation from our *touch_screen*: entering, storing, recalling and modifying - all functions can be preset, resulting in extremely short set-up times.

high_innovative

The *touch_frame** is unique world-wide. Any finger-touch is followed by an extremely fast and precise positioning of the cameras. The video positions of future jobs can be defined whilst a current job is running.

*patent pending

For further information please refer to the **eltromat_vision** brochure

high_modular

Additional special strobes can be integrated for inspection of varnish, fluorescent colours and holograms.



colour

QUICK TO CORRECT COLOUR



The electronic colour adjustment of printing presses has been state of the art for a long time. Precise, quick, reliable and easy to operate are the important factors for which we strive. **eltromat_colour** can be applied to printing presses of any width and any number of printing units.



high_intuitive

Intuitive operation via *touch_screen* – any functions can be used at any time. It is optimized for fast reaction by the operator.

By means of the patented LinearMouse, any selected area of the job can easily be defined, due to a direct relationship with the printed pattern.

The setting of single keys, group of keys and all keys is possible. Even partial ink key setting is possible - the system automatically calculates the necessary adjustment for the corresponding keys. The ink profiles of up to 8 future jobs can be defined whilst the current job is running.

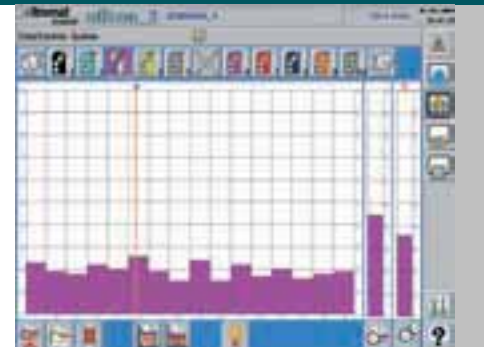
high_experienced

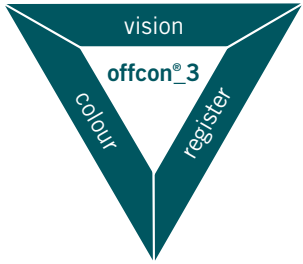
More than 400 systems in use world-wide. Can be applied to almost any printing press - both new or retro-fitted to older presses.

high_speed

The use of high-quality components and simple intuitive operation will set-up the correct colour values immediately. The pre-setting of the ink fountain control with a printing plate scanner type **dpm** or with the CIP3 data conversion system **cip-con**, makes a significant reduction of waste and set-up time by up to 30 %.

For further information please refer to the **eltromat_colour** brochure





offcon®_3

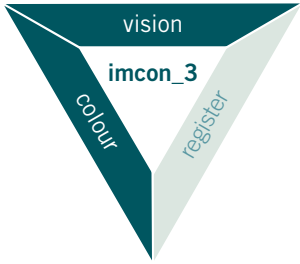
register + vision + colour = offcon®_3

offcon®_3 – the first integrated system on the market combining the functions of register control, web viewing and ink fountain control. All elements are operated with the latest operating technology: *touch_screen* and *touch_frame*:

- register control
- web viewing
- ink fountain control



application	<p>offset printing letterpress printing web - web</p> <p><i>Essential with presses having more than 5 colours</i></p>
operation	<p>LinearMouse touch_screen touch_frame - <i>optional</i></p>
functions	<p>eltromat_register <i>register control</i></p> <ul style="list-style-type: none"> - camera-based register control - separate measurement cameras - mini register marks - absolute measurement of top and bottom side of the web, as well as top to bottom - flexible mark patterns - free choice of the camera positions in the press - short measurement cycles <p>eltromat_vision <i>web viewing</i></p> <ul style="list-style-type: none"> - absolute homogeneous illumination of the web - HQ-camera, high-resolution - real-time image reproduction - camera positioning via <i>touch_frame</i> - <i>optional</i> - special strobes - <i>optional</i> <p>eltromat_colour <i>ink fountain control</i></p> <ul style="list-style-type: none"> - highly precise ink setting - ink gap precision up to 1 micrometer - ink key setting of single keys, group of keys and all keys - simple zero calibration of the ink keys
service	<p>remote diagnostics via modem as standard</p>
interfaces	<p>eltromat_flow</p>



imcon_3

vision + colour = imcon_3

imcon_3 is an integrated system that combines the functions web viewing and ink fountain control. Essential components are operated with the simple and intuitive *touch_screen* and *touch_frame* controls:

- web viewing
- ink fountain control

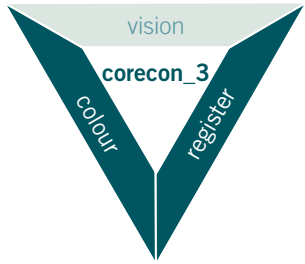


integral

offcon[®]_3 | imcon_3

Offset printing, Letterpress printing

application	offset printing letterpress printing web – web
operation	LinearMouse touch_screen touch_frame - <i>optional</i>
functions	<p>eltromat_vision <i>web viewing</i></p> <ul style="list-style-type: none"> - absolute homogeneous illumination of the web - HQ-camera, high-resolution - real-time image reproduction - camera positioning via <i>touch_frame - optional</i> - special strobes - <i>optional</i> <p>eltromat_colour <i>ink fountain control</i></p> <ul style="list-style-type: none"> - highly precise ink setting - ink gap precision up to 1 micrometer - ink key setting of single keys, group of keys and all keys - simple zero calibration of the ink keys
upgrade	with eltromat_register to offcon[®]_3
service	remote diagnostics via modem as standard
interfaces	eltromat_flow



corecon_3

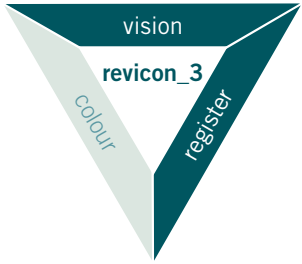
colour + register = corecon_3

corecon_3 combines the functions ink fountain control and register control. The system was specially developed for web fed presses with the possibility of copy removal and the necessity for ink fountain and register controls. Essential components are operated with the simple and intuitive *touch_screen*.



- register control
- ink fountain control

application	offset printing letterpress printing web - sheet, web - folder for commercial and web offset presses
operation	LinearMouse touch_screen
functions	eltromat_register <i>register control</i> <ul style="list-style-type: none"> - camera-based register control - separate measurement cameras - mini register marks - absolute measurement of top and bottom side of the web as well as top to bottom - flexible mark patterns - free choice of the camera positions in the press - short measurement cycles eltromat_colour <i>ink fountain control</i> <ul style="list-style-type: none"> - highly precise ink setting - ink gap precision up to 1 micrometer - ink key setting of single keys, group of keys and all keys - simple zero calibration of the ink keys
upgrade	with eltromat_vision to offcon®_3
service	remote diagnostics via modem as standard
interfaces	eltromat_flow

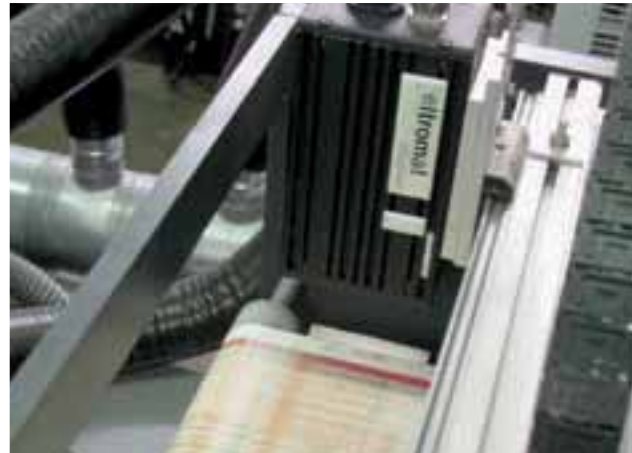


revicon_3

register + vision = revicon_3

revicon_3 combines the functions register control and web viewing. The system was specially developed for web fed presses with the necessity for register control and web viewing for the production of high quality products. Essential components are operated with the simple and intuitive *touch_screen* and *touch_frame*.

- register control
- web viewing



integral

corecon_3 | revicon_3

Offset printing, Letterpress printing, Inline flexo printing

application	offset printing letterpress printing inline flexo printing web – web
operation	touch_screen touch_frame - <i>optional</i>
functions	<p>eltromat_register <i>register control</i></p> <ul style="list-style-type: none"> - camera-based register control - separate measurement cameras - mini register marks - absolute measurement of top and bottom side of the web as well as top to bottom - flexible mark patterns - free choice of the camera positions in the press - short measurement cycles <p>eltromat_vision <i>web viewing</i></p> <ul style="list-style-type: none"> - absolute homogeneous illumination of the web - HQ-camera, high-resolution - real-time image reproduction - camera positioning via <i>touch_frame</i> - <i>optional</i> - special strobes - <i>optional</i>
update	with eltromat_colour to offcon®_3 for offset applications
service	remote diagnostics via modem as standard
interfaces	eltromat_flow

finecolour



Our ink fountains are equipped with high technology LASER-cut segmented ink blades with special long-life sealant. They are adaptable to the variable width of all offset and letterpress print units. The unique mechanics for the ink key adjustment used by **eltromat** allows exact reproduction of the gap between each ink key blade segment and ductor roll. An individual ink key position - independent of the neighboring zones - is secured. The precise guidance of the ink keys allows an exact repositioning of the ink fountain after cleaning. The positive flexible sealing between ink blades, cheeks and ductor roll has been perfected over many years.



flow

eltromat_flow – these are the job preparation and administration system **jobcon** and the CIP3 data conversion system **cipcon**.

eltromat_flow stands for

- simplification of complicated processes in job preparation and administration
- intuitive and fast job preparation
- automatic presetting of any printing processes



jobcon

jobcon is a work station for job processing and job preparation outside of the press. Waste will be avoided and set-up time will be saved. jobcon is also a central data server for press and process data.

- oracle® data base
- integrated CIP3 interface, prepared for CIP4
- supplying of process-independent job data (area coverage on the printing plate, presetting of video positions, presetting of register control configuration)
- supply of setting data for press controls
- job decisions for the printing press can be rescheduled right up to the job start



cipcon

The data conversion system **cipcon** processes CIP3 standard data taken from CtF and CtP systems of different manufacturers and calculates presetting values for ink fountain controls on printing presses.

- **cipcon** is independent of press manufacturers.
- individual adaptation of the calculation curves, from area coverage values to ink key steps, for each printing colour
- preview of the whole image
- individual adaptation to internal processes
- integration into the company's network
- interfaces to different press manufacturers
- prepared for CIP4



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