

Next generation flexo plate making

Simple, consistent & automated



Crystal Technology

The perfect plate for all flexo print applications

CDI Crystal: simplified flexo imaging

In today's market, rushing jobs at the last minute at high quality has become the norm.

Traditional multi-step flexo plate making processes are hindering productivity. They are causing errors and rework; and reduce press uptime. In the end, that harms the productivity and profitability of your operation.

A better way to produce flexo plates

The Esko CDI Crystal 5080 and 4835 are the basis for an impressive reduction of complexity in the plate room.

The Esko CDI Crystal 5080 and 4835 lay the groundwork for full integration and automation of plate imaging and UV exposure.

- Basis for reducing plate room complexity
- Based on proven Esko CDI laser imaging technology and high resolution optics
- Produces the highest plate quality standard - based on HD Flexo and Full HD Flexo
- Improved ergonomics help operators work faster



CDI Crystal 5080



CDI Crystal 4835

XPS Crystal: Improving consistency with patented UV LED exposure

Plate consistency is one of the keys to achieve, and maintain optimal print quality. One of the main factors influencing plate stability is the plate's UV exposure.

The innovative XPS Crystal optimally combines UV main and back exposure. Unlike UV frames using light bulbs fluctuating in output the XPS Crystal uses UV LEDs which don't need warm-up time and always emit consistent radiation.

A synchronised and optimally controlled UV main and back exposure produces highly consistent digital flexo plates – for every digital flexo plate type at every time of your production day.

Highest consistency and quality

- Synchronized main and back UV LED exposure
- Always repeatable, consistent plate quality
- Development based on Full HD Flexo UV exposure developments
- No more uncertainty at plate quality control

Full productivity and long life

- Parallel process to plate imaging for higher throughput
- Part of plate making automation by Crystal technology
- Significantly longer lifetime compared to bank light
- Reduce errors by 50%

XPS Crystal 5080



XPS Crystal 4835



Rethinking the flexo plate making proces

With the CDI Crystal XPS, Esko redefines flexo plate making from scratch.

Usually, this process consists of many complex and manual steps, which not only takes time, it also offers ample opportunity for human errors.

The CDI Crystal XPS is the answer: instead of sending a flexo plate through up to seven manual steps, it now becomes a coordinated, linear process.

The integration and automation of digital imaging and LED UV exposure improves consistency and overall ease of use. This solution not only frees up valuable operator time but also reduces maintenance and the footprint of your flexo equipment.

- Reduce manual steps by 50%
- Reduce errors by 50% – less plate waste
- Reduce operator time with 73%

Intuitive user interface, less errors, less operator training



“ The CDI Crystal XPS is the answer: instead of sending a flexo plate through up to seven manual steps, it now becomes a coordinated, linear process.



Take control over the plate making room

Flexo plates need to be ready fast, within a reliable delivery time. Converters cannot afford presses to be down just because they're waiting for new plates.

Esko's Automation Engine comes with an automated flexo platemaking module. There's no longer need for manual interventions, the files are prepared automatically which reduces errors and saves plate waste.

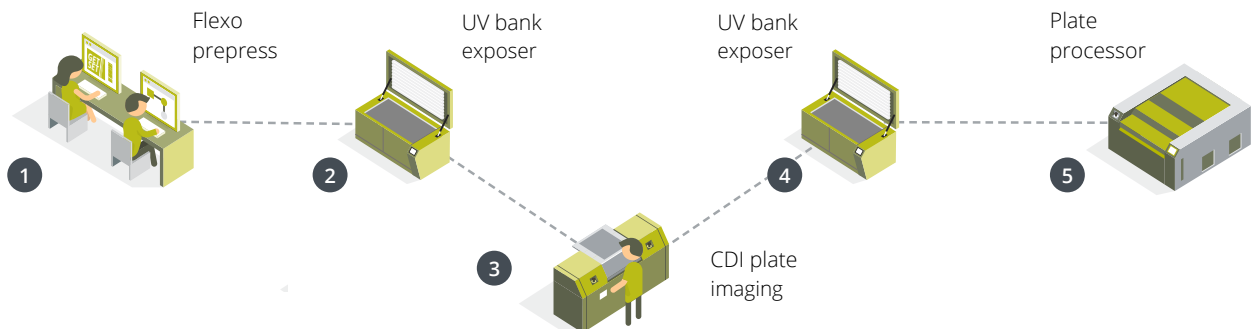
Automation Engine's Device Manager puts the prepress room in the driving seat.

The operational control over the CDI moves upstream in the production workflow.

With Device Manager, the prepress department has all the necessary information to prioritize and organize plate making queues to produce the right plate at the right time. The work in progress, status and the queues of all connected devices are clearly visualized on screen.

- Reduced complexity in the plate making room
- Makes production planning transparent and controlled
- Simplifies reporting and analytics

Current plate room



Next generation plate room



What our customers say

With Esko as a market leader in flexo plate exposure and imaging, choosing the CDI Crystal 5080 XPS was easy. A **deciding factor** was the fact that the Esko solution is an **open system**, which means that we are able to image a **wide range of different plates**.

*Dennis Melching, Managing Director
Stichnothe Druckformen, Germany*

We are taking **competitive advantage** and **winning new business**. This important investment is a **natural progression**. We have been waiting to complete our digital solution with Esko's new exposure technology. From front end to dispatch, Esko's continuing commitment to innovation is **exceptional and groundbreaking**.

*Vincenzo Consalvo, Managing Director
Inci.Flex, Italy*

Thanks to this technology, we now are able to supply our clients with standard screens (137/152-line), up to the **absolute premium range** with 250 lpi. We can deliver the **best possible plate quality** with the **highest level of consistency and repeatability** that we have not experienced to date.

*Manfred Schrattenthaler, Managing Director
Glatz Klischee, Austria*



Esko automates the flexo platemaking by connecting the imaging process step (CDI Crystal) and the exposing process step (XPS). Beyond that also an automated connection with a developing unit can be provided. On this image the CDI Crystal XPS is integrated with the Vianord developing unit at InciFlex, Italy.

Technical specifications

	CDI CRYSTAL 4835	CDI CRYSTAL 5080
Type of imager	<ul style="list-style-type: none"> External drum design Cast granite machine base High power Fiber Laser source, Laser Class 1 CDI. 	
Image quality	<ul style="list-style-type: none"> Screen rulings up to 250 lpi, depending on imaging resolution Halftone: 1-99% HighRes Optics: fully variable from 2540 to 4000 ppi on job to job base 	
Engine control	<ul style="list-style-type: none"> Grapholas Touch Exposer on Intel PC with Windows 7 Automatic merging via "Automation Engine" in combination with "Flexo Plate Making Module for AE" or standalone Merger (requires Intel PC with Windows 7) Input file format: LEN or TIFF, compatible with all CDI family members 	
RIP and screening options	<ul style="list-style-type: none"> Optional Imaging Engine Industry standard PostScript/PDF RIP Quality screening optimized for flexo (Circular, Double Circular dots) included in the RIP HD Flexo Screening option for the finest print quality in flexo Pixel+ option for best in class ink transfer and SIDs in flexo 	
Esko software	<ul style="list-style-type: none"> Device Manager, Automation Engine, Imaging Engine, Flexo Screening (HD Flexo, Pixel+, Crystal Screening), Equinox ... 	
Plates	<ul style="list-style-type: none"> All digital photopolymer plates Usable plate thickness: 0.030" to 0.155" / 0.76 to 3.94 mm 	
Plate sizes	up to 48" x 35" / 1200 x 900 mm or smaller	up to 50" x 80" / 1270 x 2032 mm or smaller
Machine dimensions	<ul style="list-style-type: none"> Width: 98.2" / 2494 mm Depth: 84.6" / 2148 mm Height: 54.4" / 1381 mm Weight: 2425 lbs / 1100 kg 	<ul style="list-style-type: none"> Width: 133.62" / 3394 mm Depth: 84.96" / 2158 mm Height: 54.44 / 1383 mm Weight: 4497 lbs / 2040 kg
Installation requirements	<ul style="list-style-type: none"> Separate vacuum system, exhaust unit and external compressed air device included No external water cooling is required Electrical <ul style="list-style-type: none"> Imager: 230V/N/PE, 50/60 Hz Exhaust unit: 230V/N/PE, 50/60Hz, 1.2 kVA Air compressor: 230V/N/PE, 50/60Hz, 0.75 kVA 	

	XPS 4835	XPS 5080
Type of device	UV-LED back and main exposure of digital photopolymer plates for flexo printing	
Engine control	XPS Touch GUI on Intel PC with Windows 7	
Plates	<ul style="list-style-type: none"> All digital photopolymer plates Usable plate thickness: 0.030" to 0.255" / 0.76 to 6.35 mm 	
Plate sizes	up to 48" x 35" / 1200 x 900 mm or smaller	up to 50" x 80" / 1270 x 2032 mm or smaller
Machine dimensions	<ul style="list-style-type: none"> Width: 77.55" / 1970 mm Depth: 77.04" / 1957 mm Height: 53.85" / 1368 mm Weight: 1433 lbs / 650 kg 	<ul style="list-style-type: none"> Width: 122.04" / 3100 mm Depth: 77.04" / 1957 mm Height: 53.85 / 1368 mm Weight: 1764 lbs / 800 kg
Installation requirements	<ul style="list-style-type: none"> XPS 4835/5080: L1/L2/L3/N/PE 400 VAC 50 Hz / 460 VAC 60 Hz, 9.0 kW Chiller: L1/L2/L3/N/PE 400 VAC 50 Hz / 460VAC 60 Hz, 9.0 kW 	

XPS Crystal exposure units and screens are protected in the US and other countries by one or more of the following patents, pending applications and their foreign counterparts as listed on www.esko.com/xps_patents.