FACT: Automation is the Future of Plate Making

FPPA 18th Annual Convention

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VP Business Development - Flexo

ESKO CDI 20 YEARS

Esko's Flexo CTP product portfolio

CDI Spark 1712/A3

Plates up to 17x12 inches

CDI Spark 2120

Plates up to 21x20 inches

CDI Spark 2420

Plates up to 24x20 inches

CDI Spark 2530

Plates up to 25x30 inches

CDI Spark 4835

Plates up to 47.2x35.4 inches

CDI Spark 4260

Plates up to 42x60 inches

CDI Spark 5080

Plates up to 50x80 inches

CDI Advance Cantilever 1450

Plates up to 42x60 inches

CDI Advance Cantilever 1750

Plates up to 50x80 inches

Today's Objectives

- Explain why Automation is needed
- Look at what technologies exist today
- Look at what technologies ***COULD*** exist soon.

Why Automation: Key Drivers and Trends

- General market pressures for cheaper, faster, better. Always.
- Smaller household sizes and demand for convenience
  - Reduced average pack size
  - More varieties as brands compete for consumers
- Result is Shorter Run Lengths
  - Larger proportion of the overall cost of the job comes from **PREPRESS**
  - **Digital Printing** has become a **viable alternative** for small runs
  - Fixed Inkset (ECG) printing enables shorter runs and faster turnarounds.

What must we do?

- Continue to increase **Quality**
  - In certain segments, flexo has been taking market share and this will continue as technology improves
  - This enables us to continue converting offset and gravure to flexo
- Continue to increase **Consistency**
  - Enables standardization
  - Brands require consistency

What must we do?

- Become **more responsive**
  - Demands for quicker artwork changes and turnaround
  - Ability to gang SKUs on a press becomes more important

- **Reduce costs** of prepress and plate making
  - Reduce manual steps
  - Lower skill level required

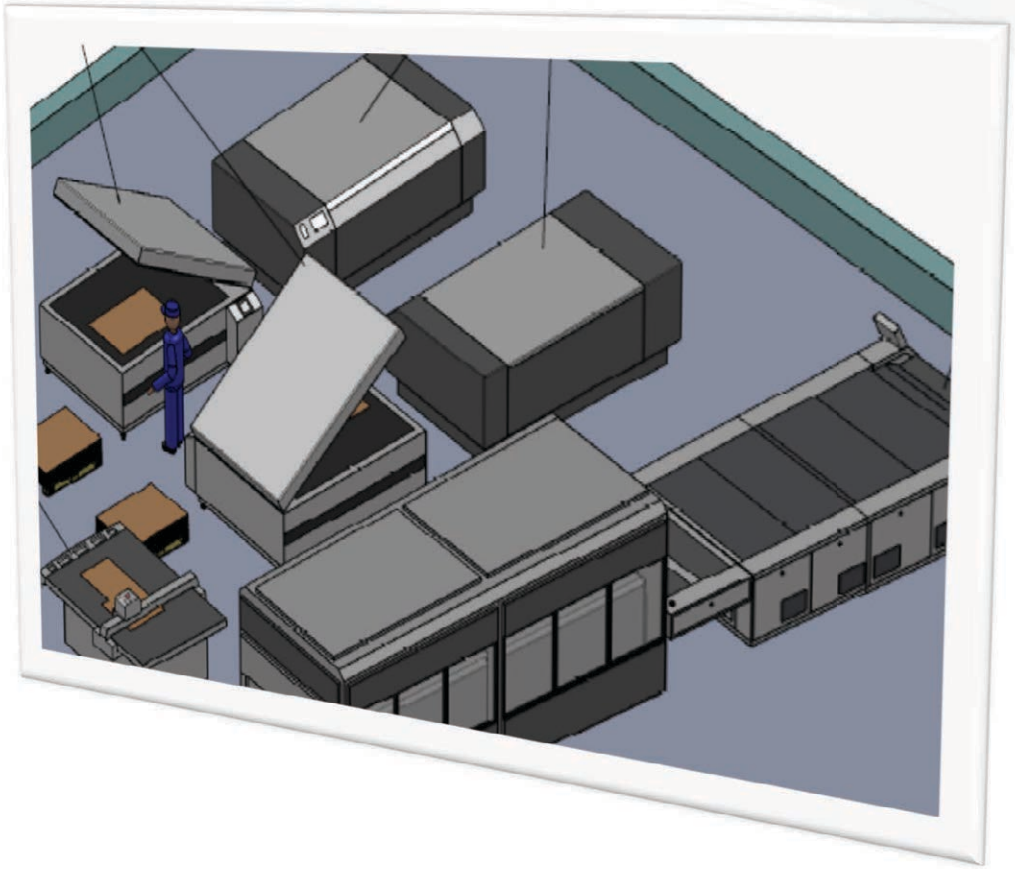
Current examples of Automation in Flexo

- Automatic plate mounter
- Flexo Presses
  - Servo drives
  - Push-button changeover
  - Automatic clean-up
  - Automatic Ink Control
- Automatic Plate Washer

Esko and Automation

Today's Plate Room

- Steps
  - Imposition of jobs
  - Back exposure of plate
  - Load plate onto CDI
  - Unload plate after imaging
  - Main exposure of plate
  - Punching of plate
  - Feed plate into processor
  - Drying of plate
  - Finishing of plate
  - Cutting of plate



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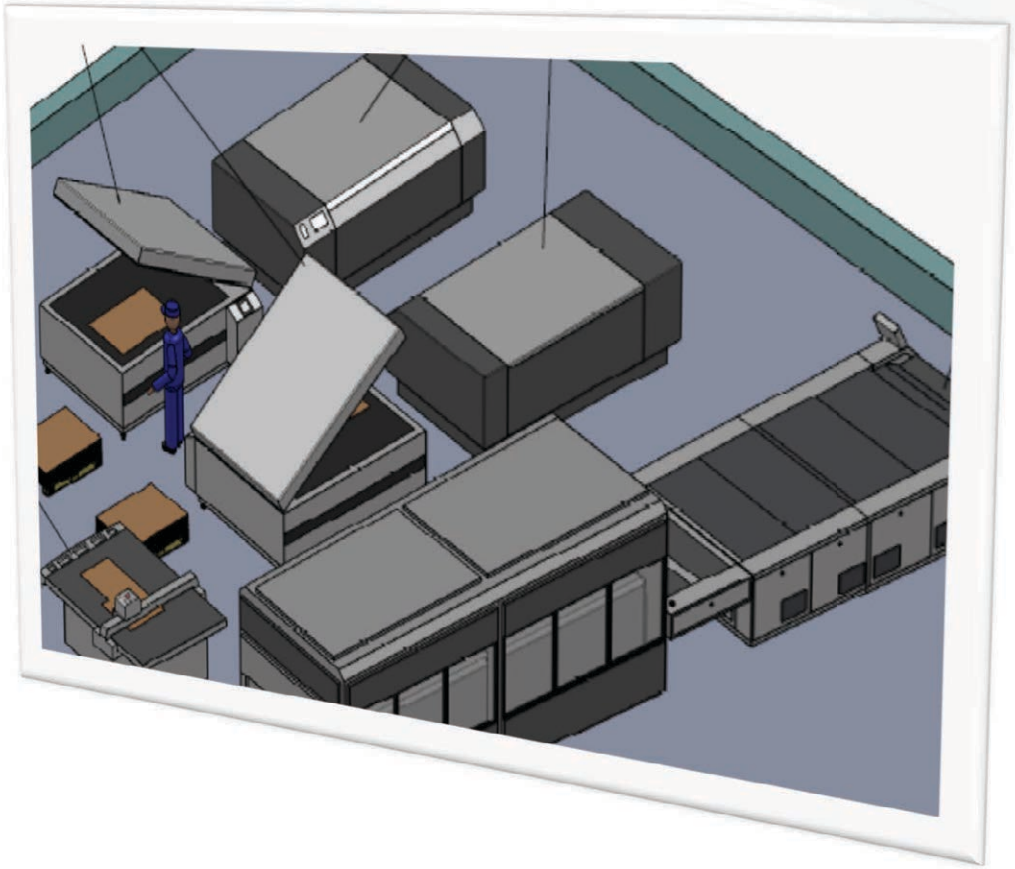

CDI Spark 4260/5080 SEMI AUTOload

- Optional for CDI Spark 5080/4260
- Built for Corrugated
  - **Automatic loading of plates up to 2.84mm/.112”**
  - **Manual Loading for plate up to 6.35mm /.250”**

→ Increased throughput and reduced plate wastage

→ Improved handling accuracy and plate loading

→ Free up manpower in plate room

- One man operation even for heavy plates

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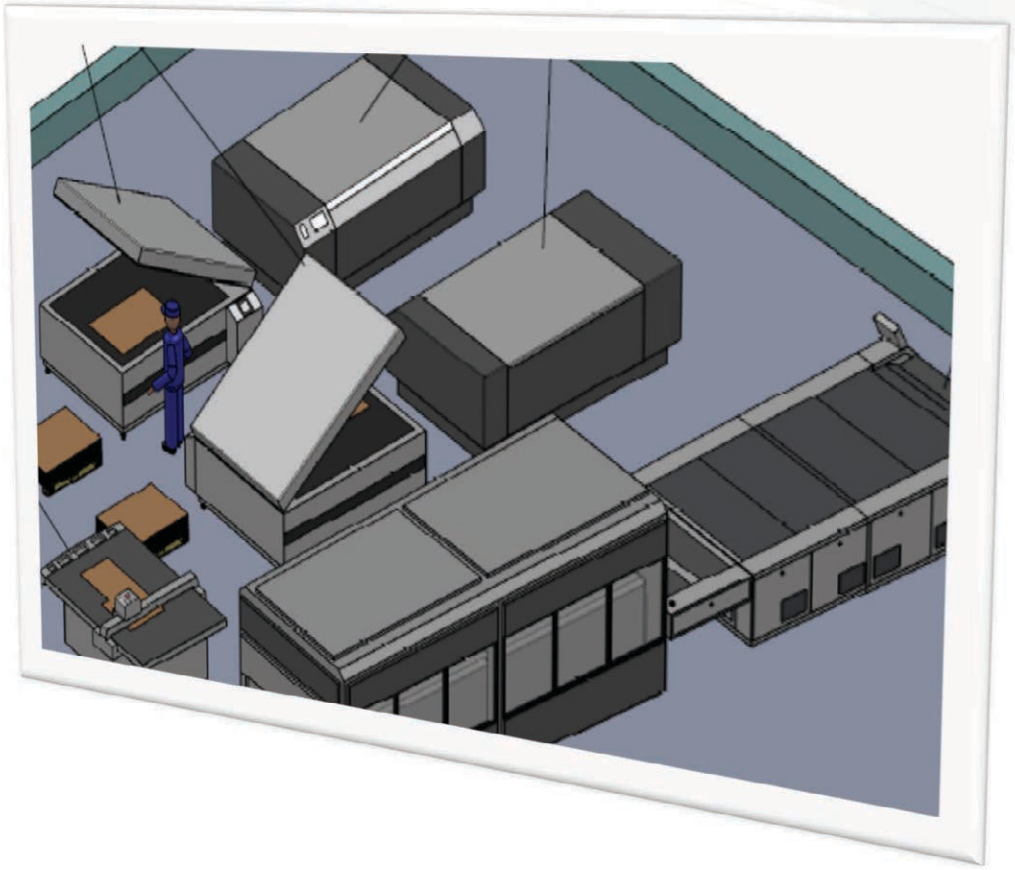
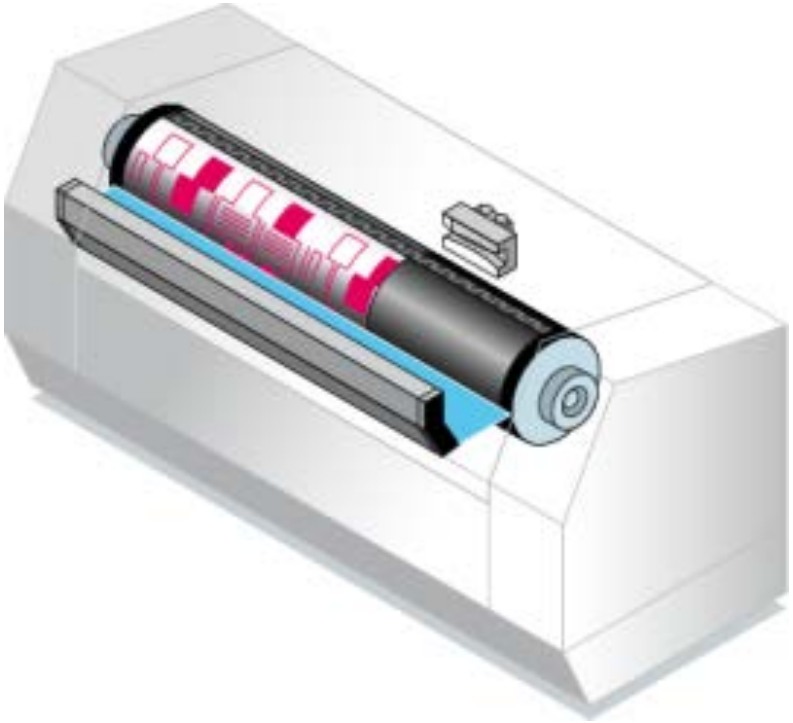
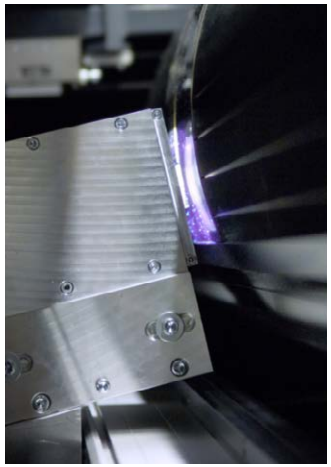


Inline UV Exposure

Digital high-power LED UV main exposure head inside CTP Imager:



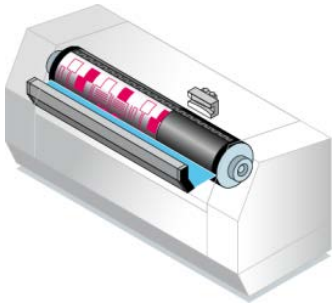
Full digital control over
Oxyen Inhibition process:
→ UV intensity
→ Surface speed during exposure
→ Dwell Time of UV light



HD FLEXO **+ Inline UV2 =** FULL HD FLEXO

Digital LED UV Exposure - Consistency

- Dot size & shape depends on main exposure UV intensity:

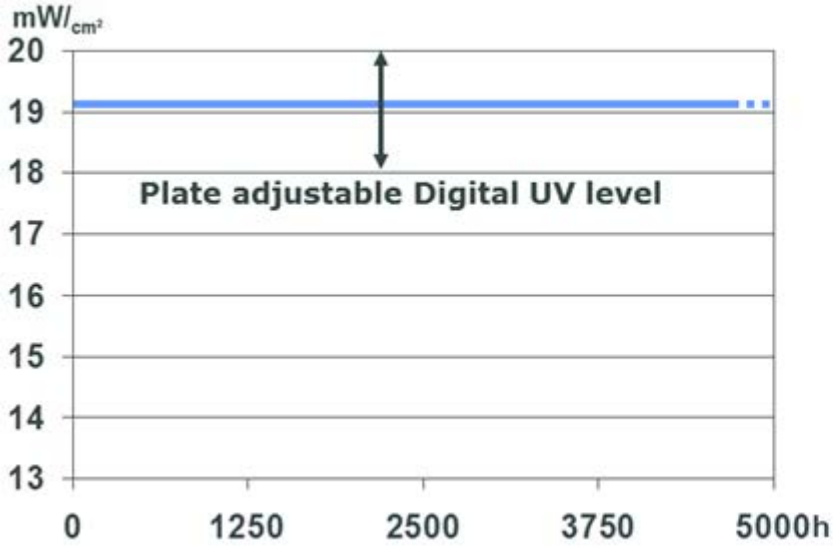


Digital
LED UV

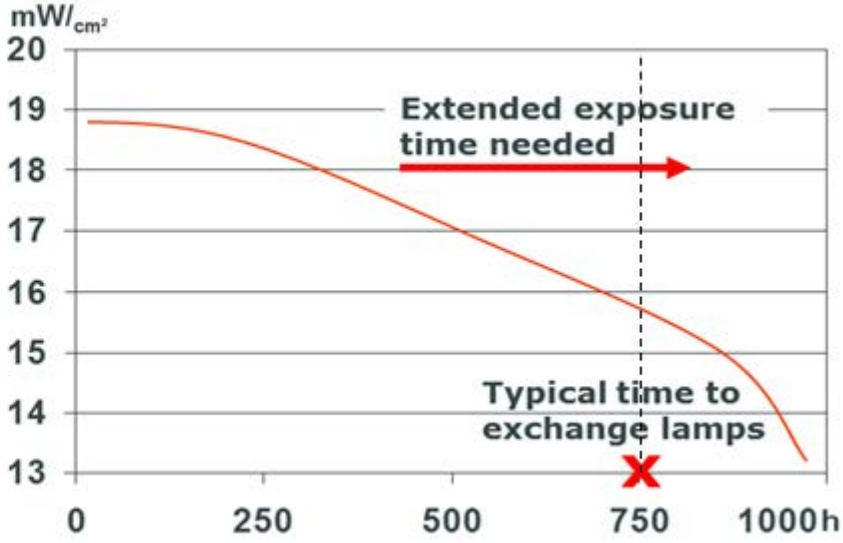
Bank UV
frame

UV bulbs

Consistent dot quality
- over 5000h (= 30.000 plates)



Inconsistent dot quality:
(continuous UV change)



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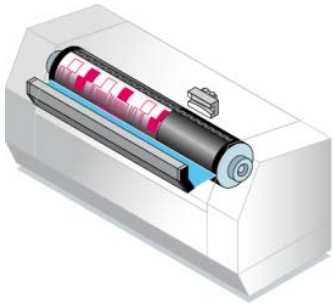

Digital
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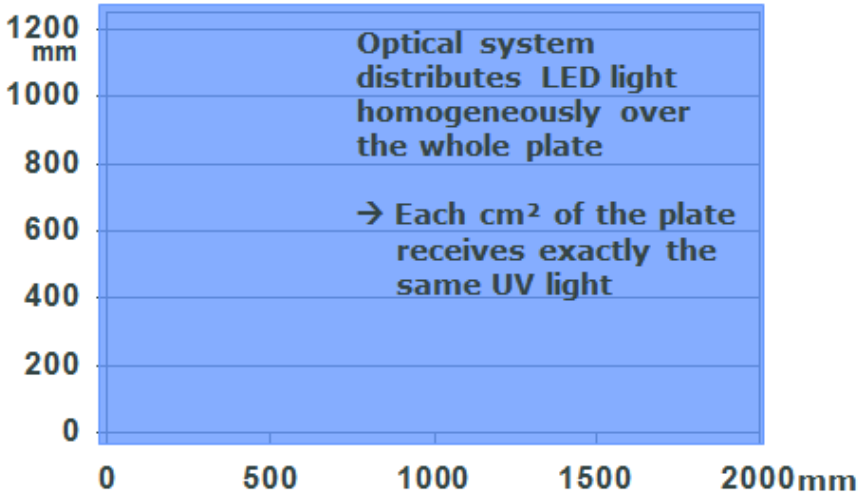
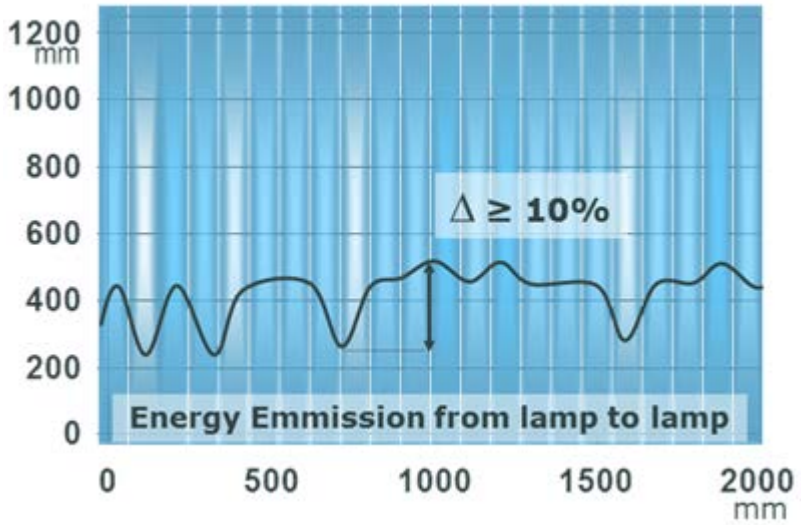
UV bulbs

Consistent dot quality
- over 5000h (= 30.000 plates)
- and equal all over the plate



Inconsistent dot quality:
- continuous UV change
- UV not constant over plate



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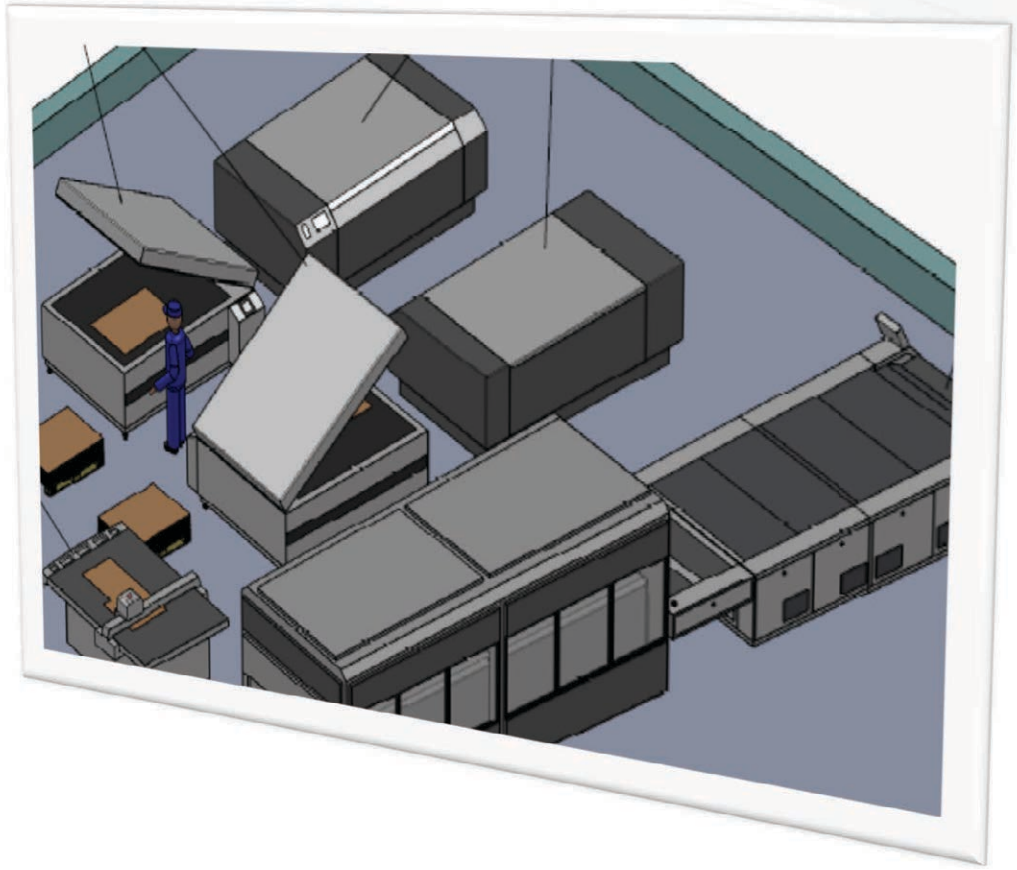
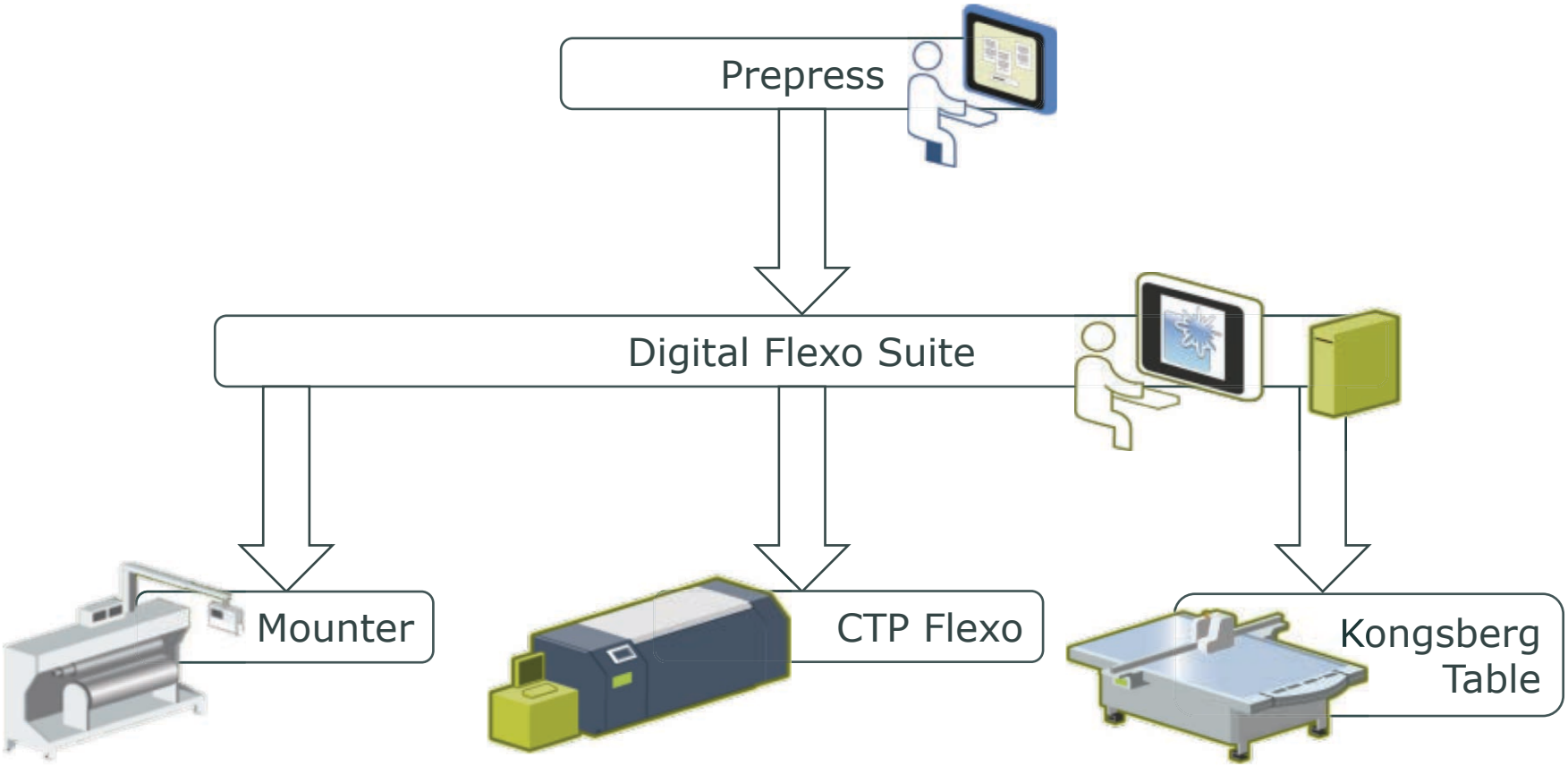


Automated Plate Cutting

Digital Flexo Suite



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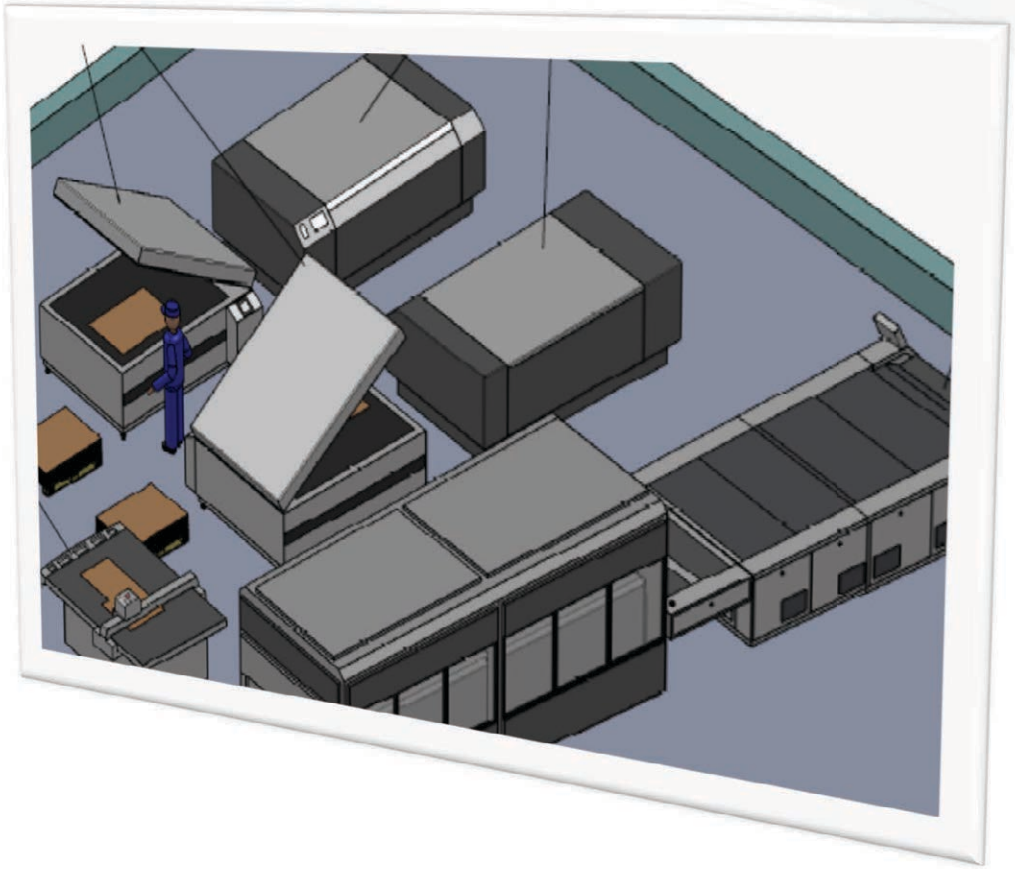

Integrating Back Exposure

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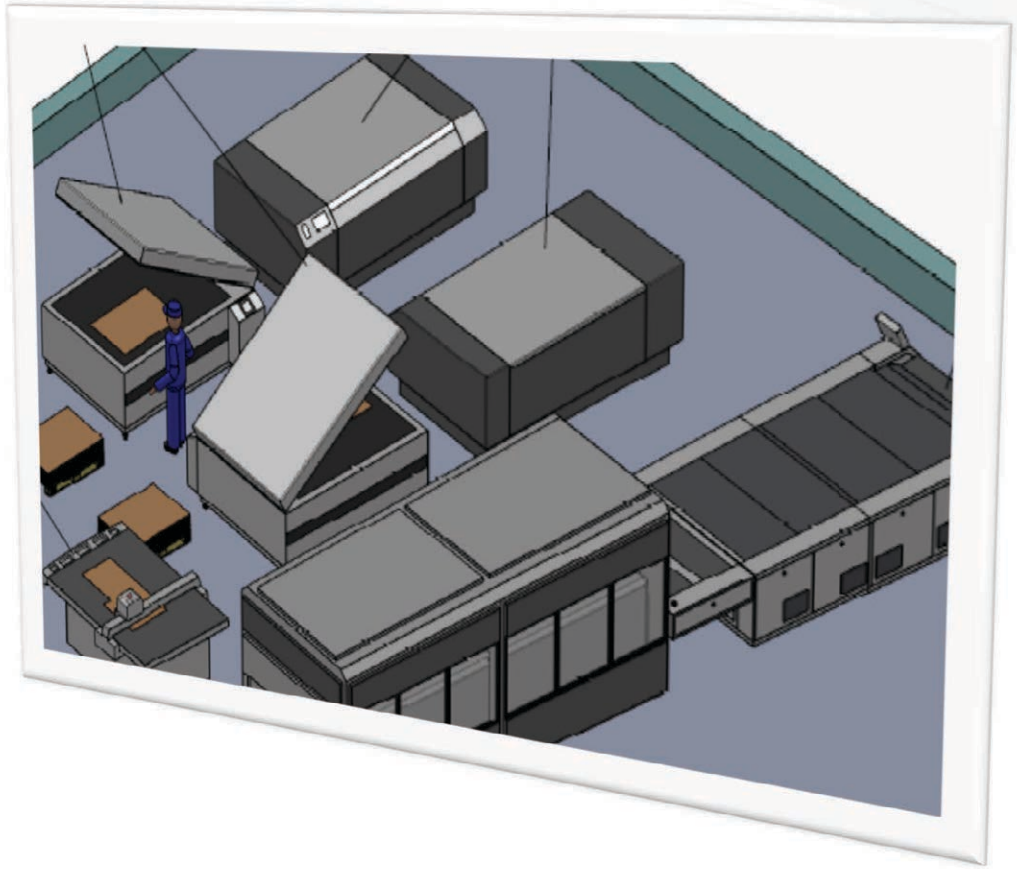

What comes next?

Better connection between prepress and plate room.

Prepress ⟵

- Automatic Merging
- Output Parameters from AE
- Device View
- Production Stats

⟶ **Plate Room**

Your input is vital!

If you have some input on this topic,

please find me and share!

Rory Marsoun

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