



# Innovations in Flexo Printing Presses

W&H „EASY“ machine modules

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Budapest, 16.10.2014



# EASY- FAMILY

## The Success Story



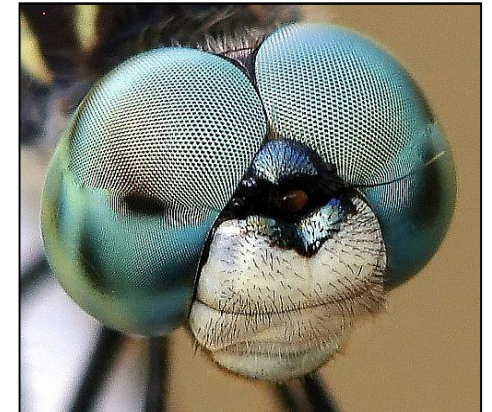
**EASY-COL**



**EASY-SET**



**EASY-REG**



**EASY-VIEW**



**EASY-COL**



**WINDMÖLLER & HÖLSCHER**

## Key messages from flexible packaging converters:

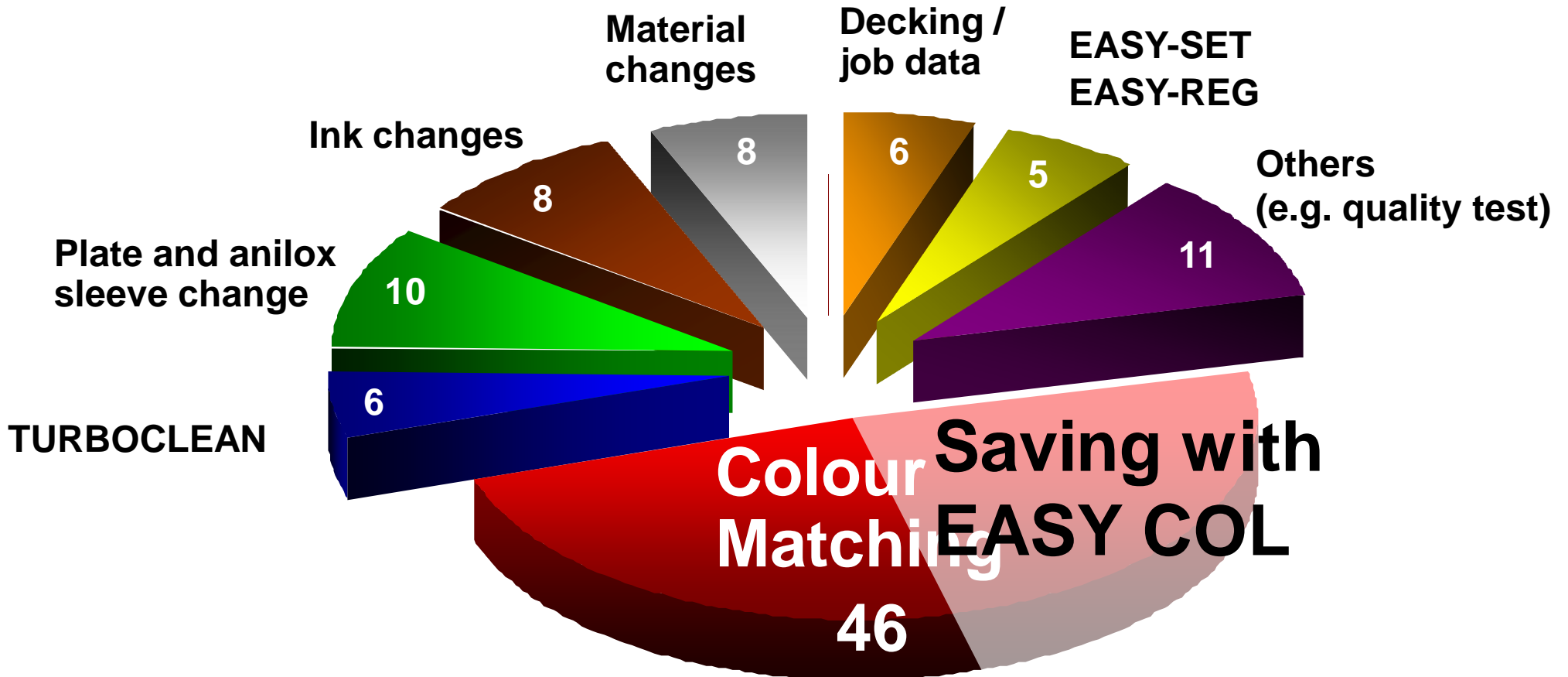
- ➡ Average order sizes continue to fall!
- ➡ Order on demand!  
*Just in time delivery*
- ➡ Shorter design change frequency!  
*Minimum stock holding => short run jobs*





# Colour Matching

Total Job Change-Over Time [%]



Source:  
Investigation by Global Brand Owner



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# Color Matching: Introduction

1st print sample



Reference



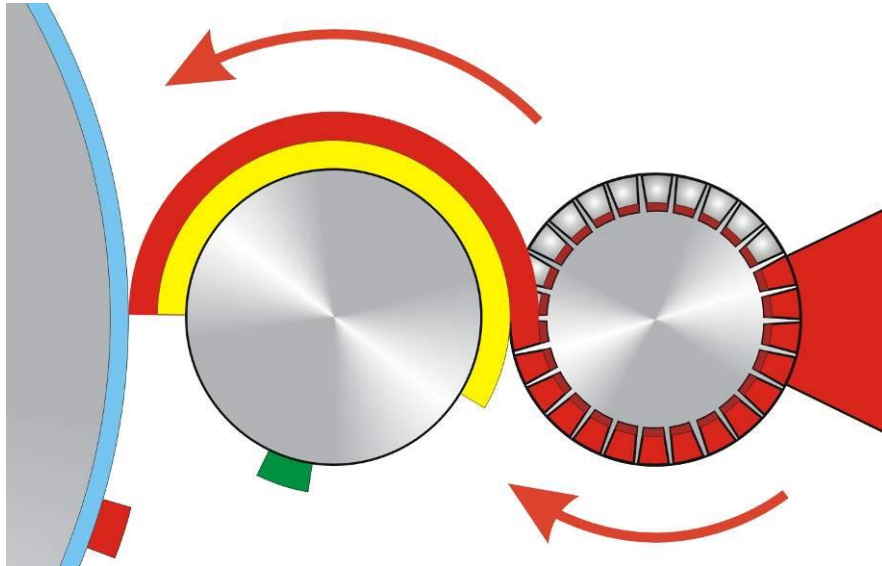
$\Delta E$ : approx. 6

Market requirements:

- $\Delta E < 1.5$  for process colors
- $\Delta E < 2$  for special colors



# Color Matching: Why is that?



## Tolerances from the ink preparation:

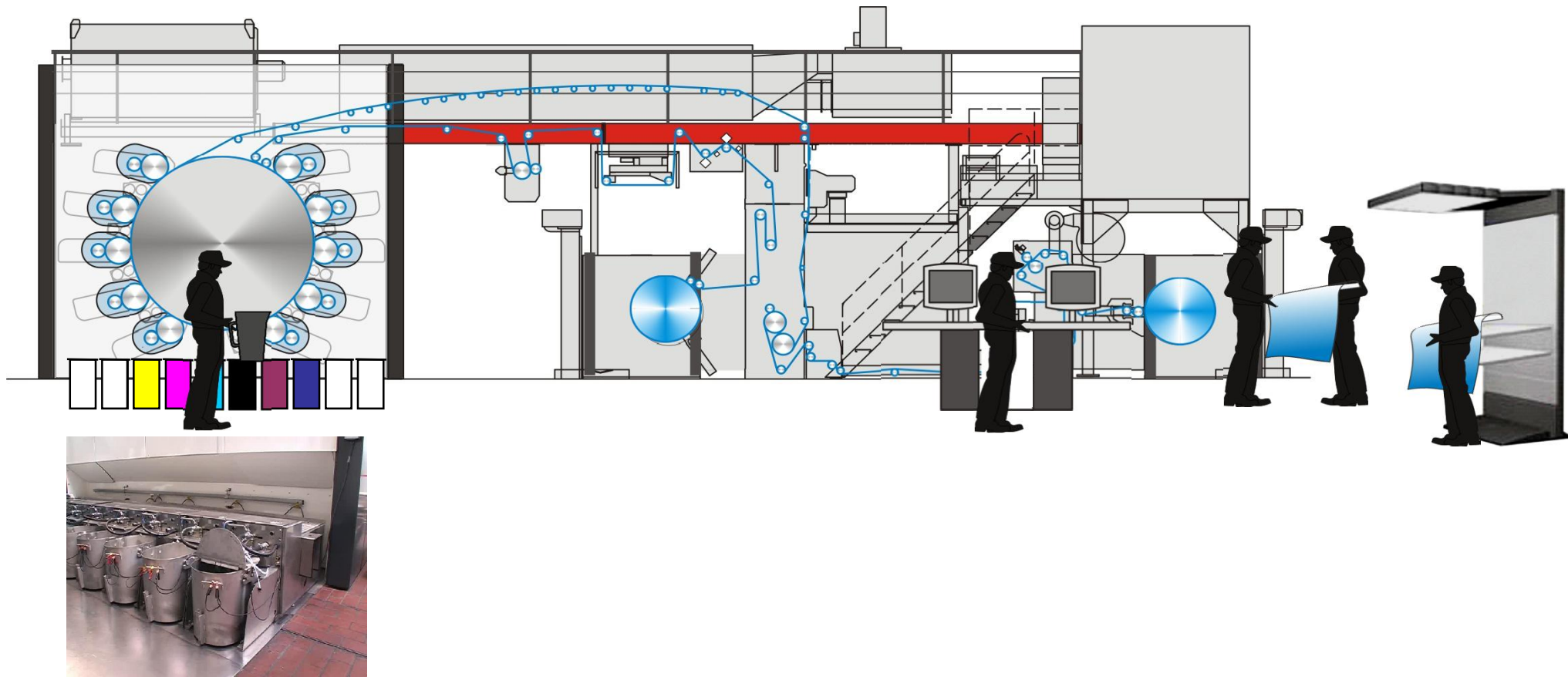
- Tolerances of base inks
- Use of left-over inks

## Tolerances from the printing process:

- Printing press A / B / ...
- Production speed
- Plate specification and condition
- Anilox specification and condition
- Substrate tolerances, treatment level

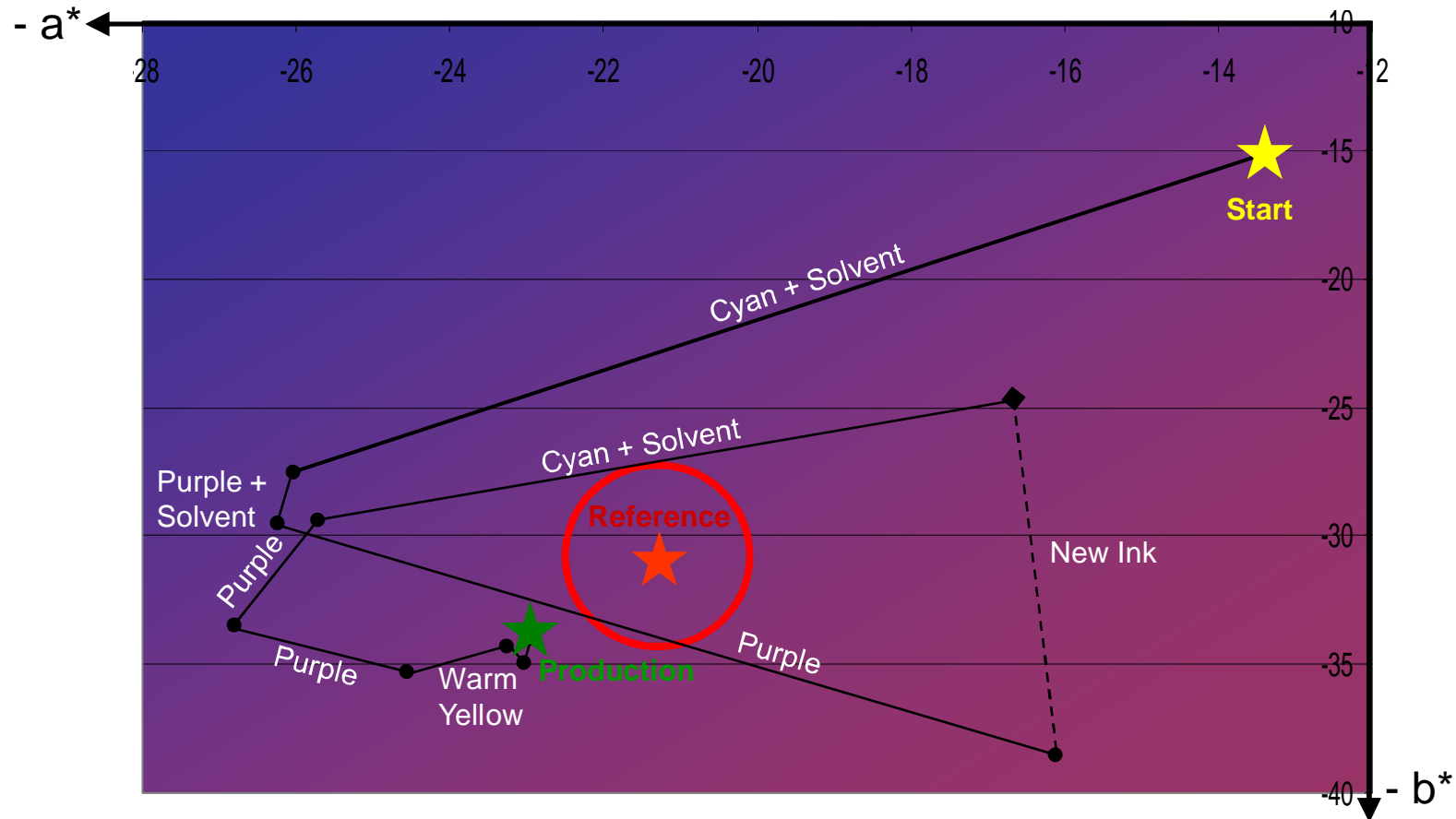


# Color Matching: Today's method





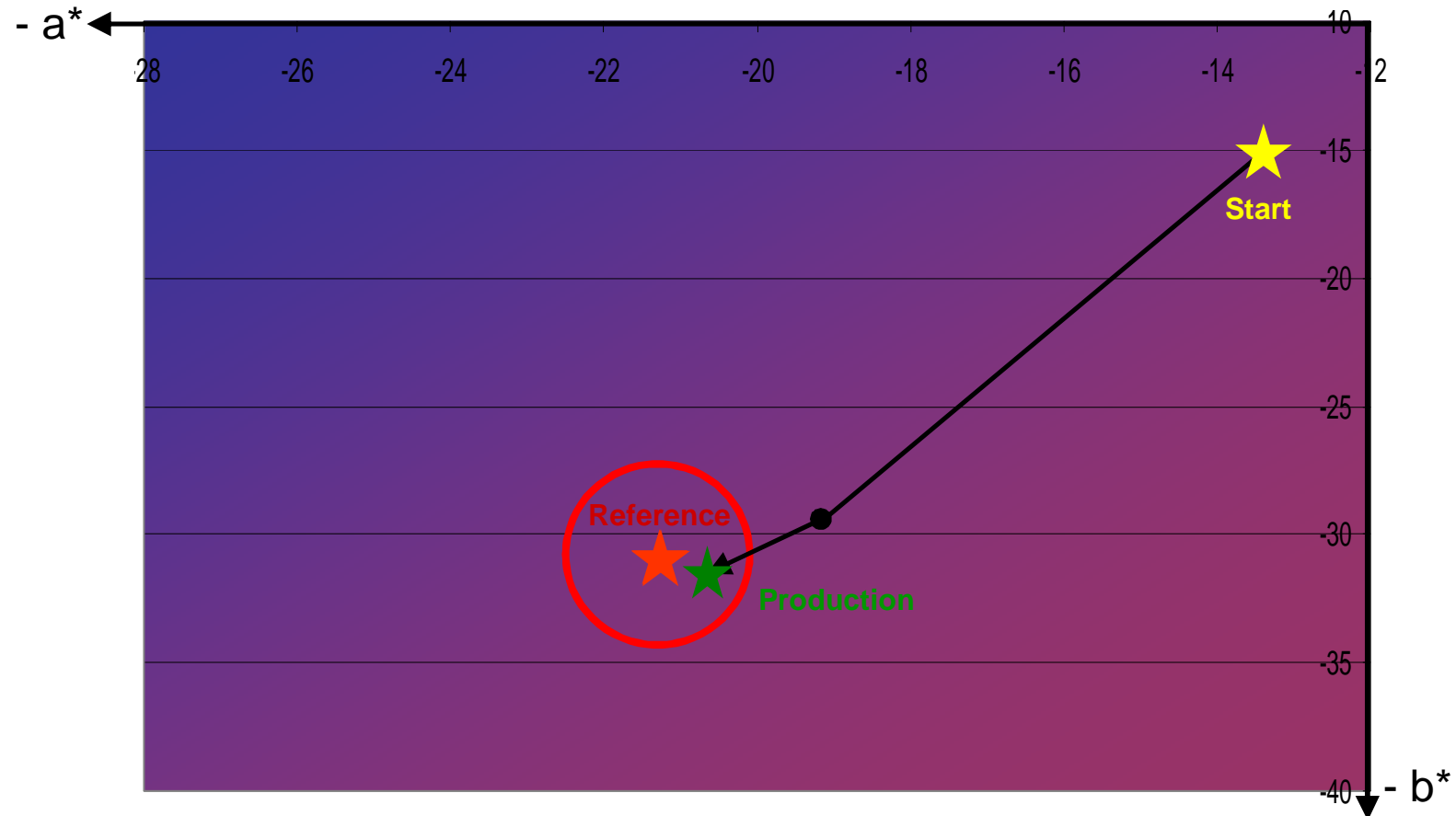
# Color Matching: Negative Example of Color Matching Today



- Typical values: 2 – 10 matching runs, 30 – 60 minutes!



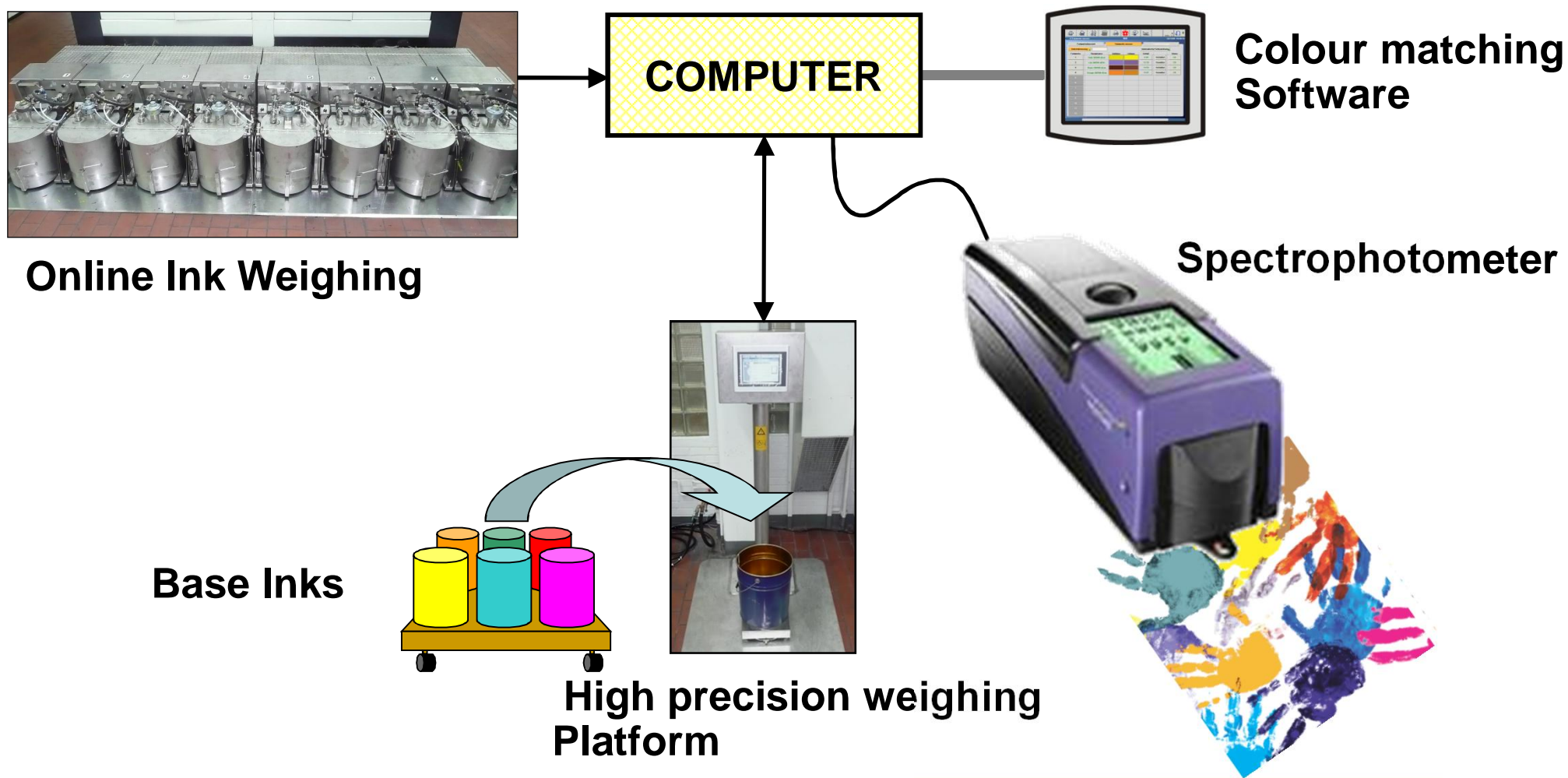
# Color Matching: The Efficient Way with EASY-COL!



- With max. 2 matching runs (if correctable) within the tolerance range!

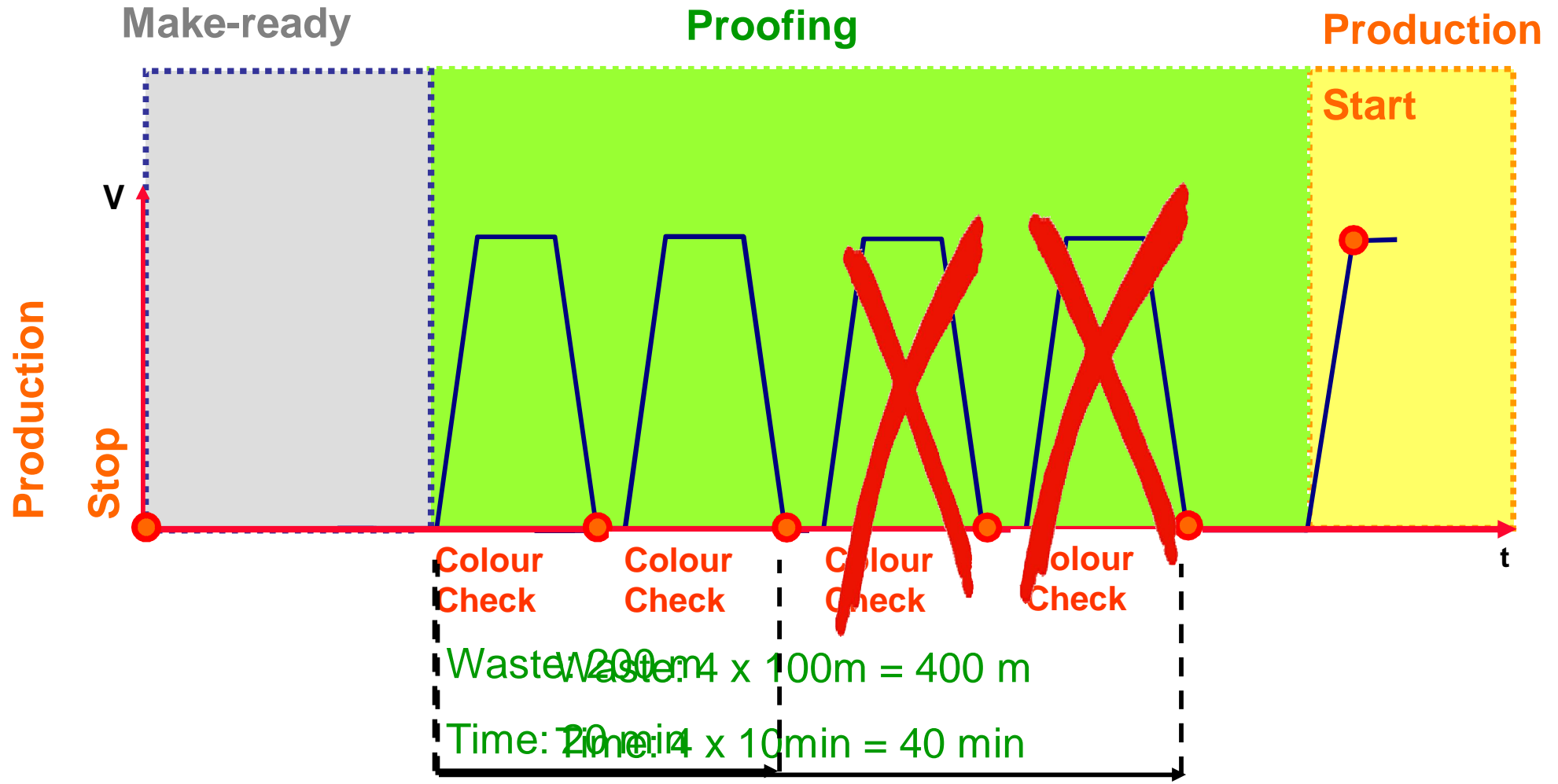


# EASY-COL: Modules





# Colour Matching — Including EASY COL





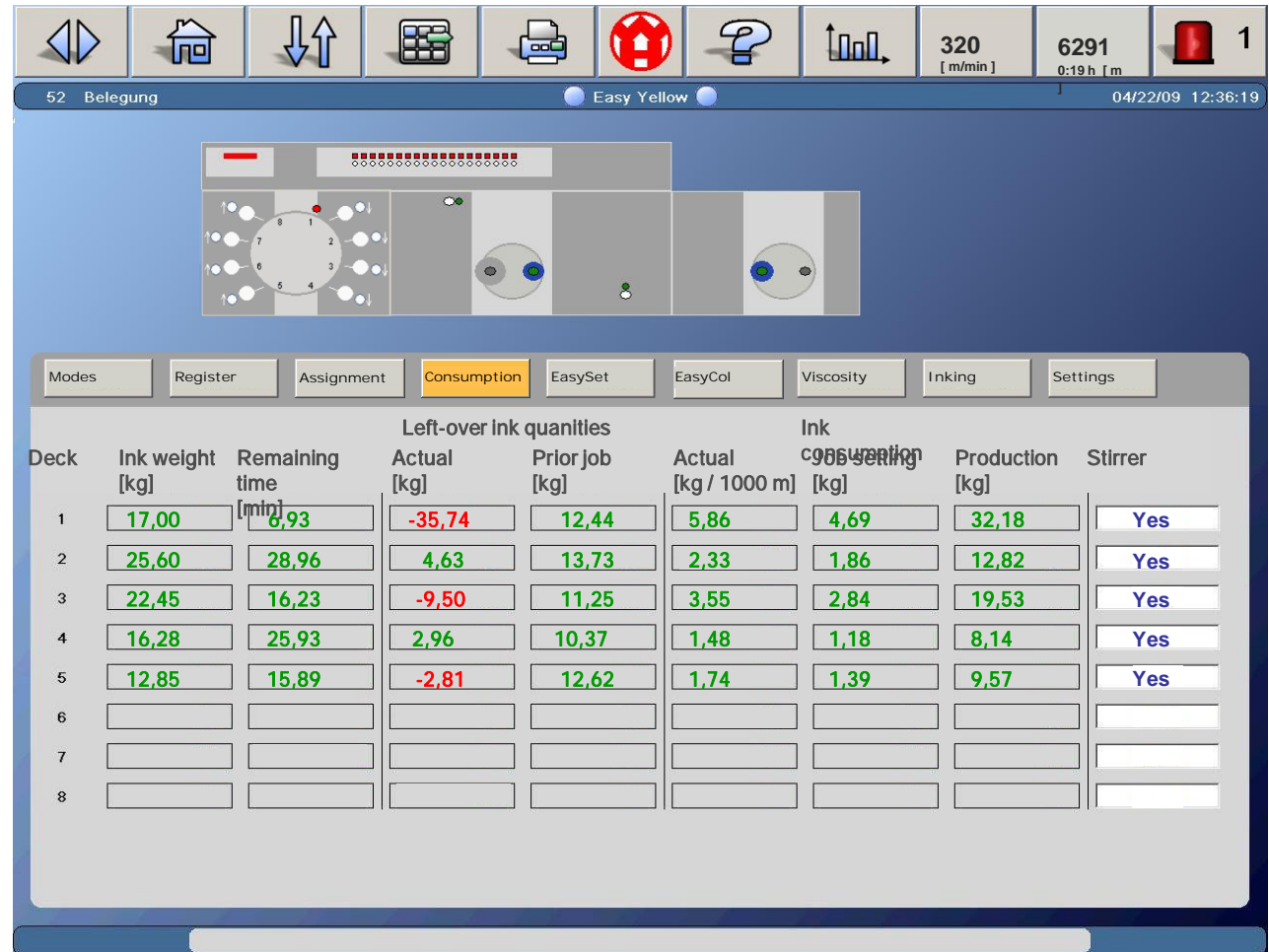
# EASY-COL:

## Reduction of Left-Over Ink Quantities

Precise information about:

- Absolute ink quantities
- Absolute ink consumption
- Still required ink quantities
- When to refill inks

=> Left-over ink quantities  
can be reduced to the  
min. needed for inking!

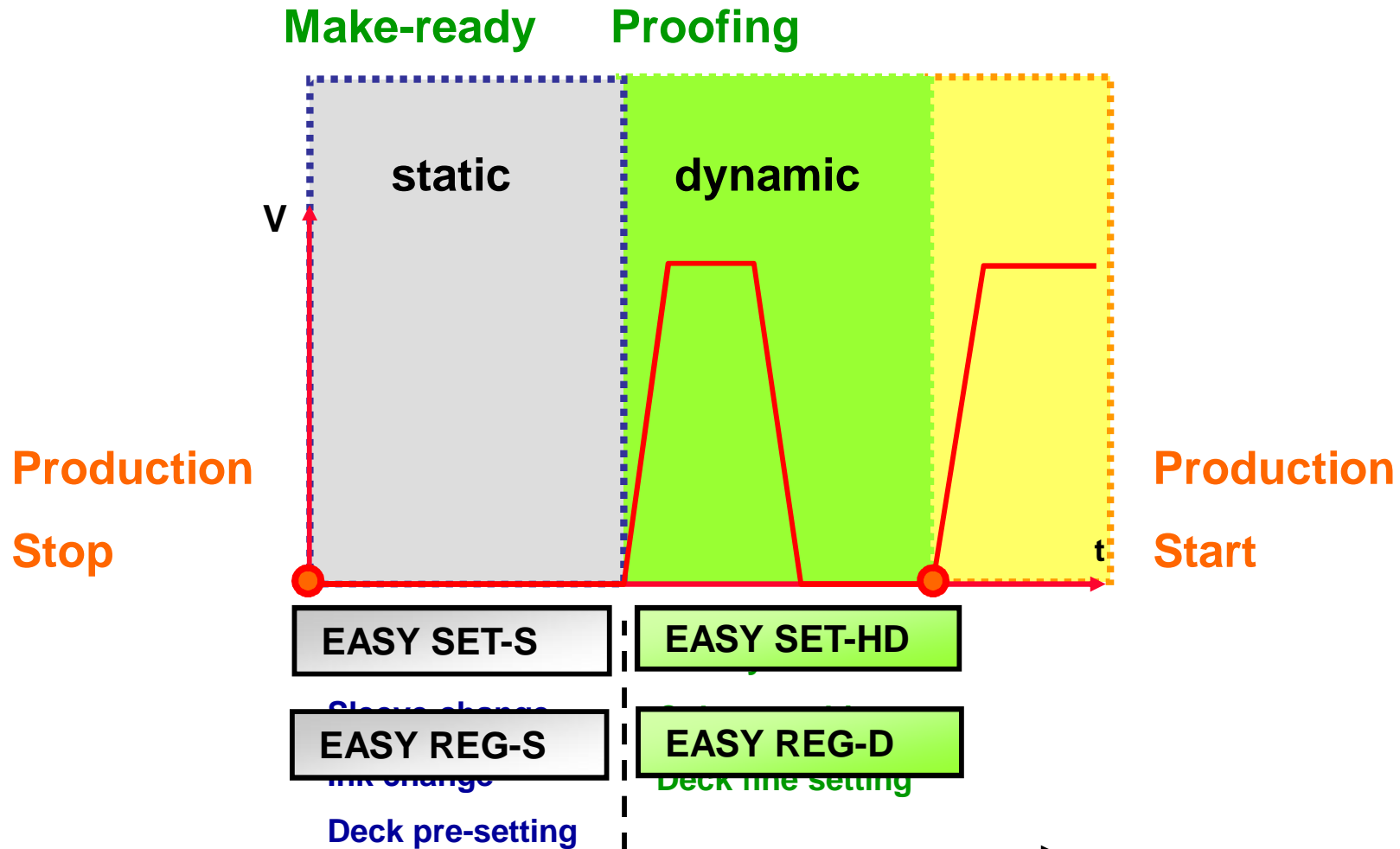


# The EASY Story

Automatic Impression and Register  
Setting Systems  
made by

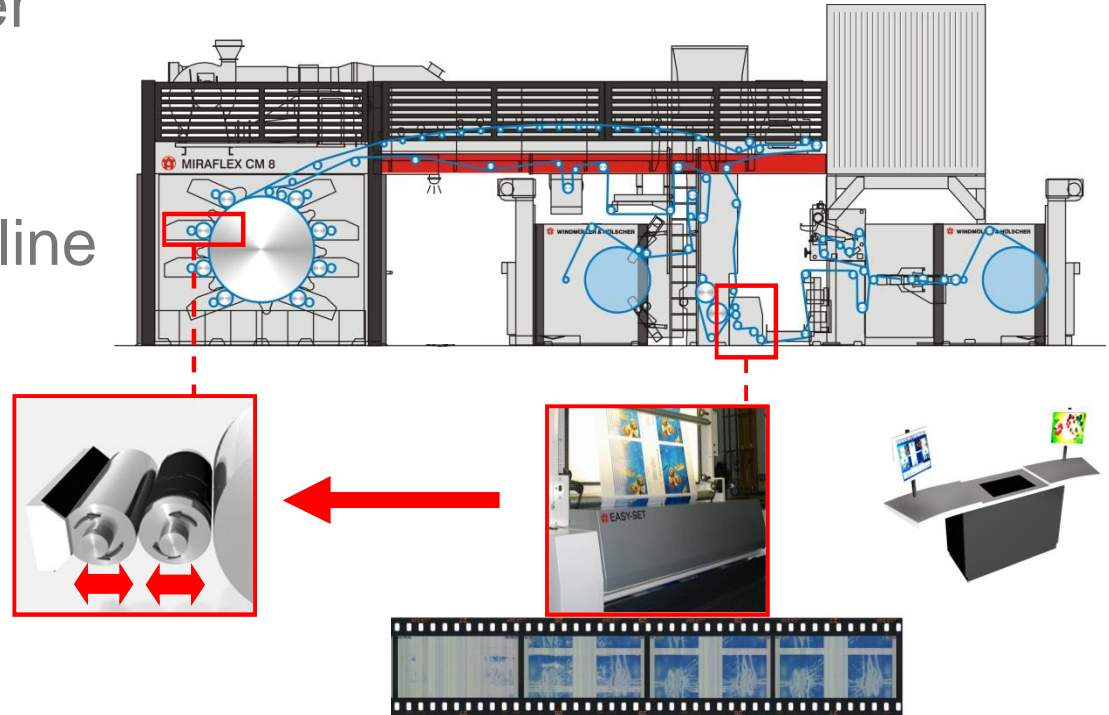


# W&H Impression and Register Setting Systems

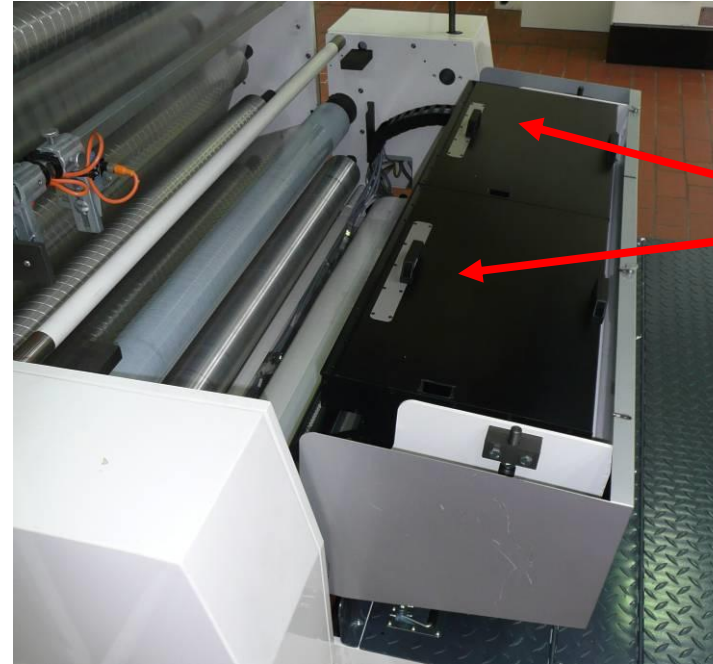
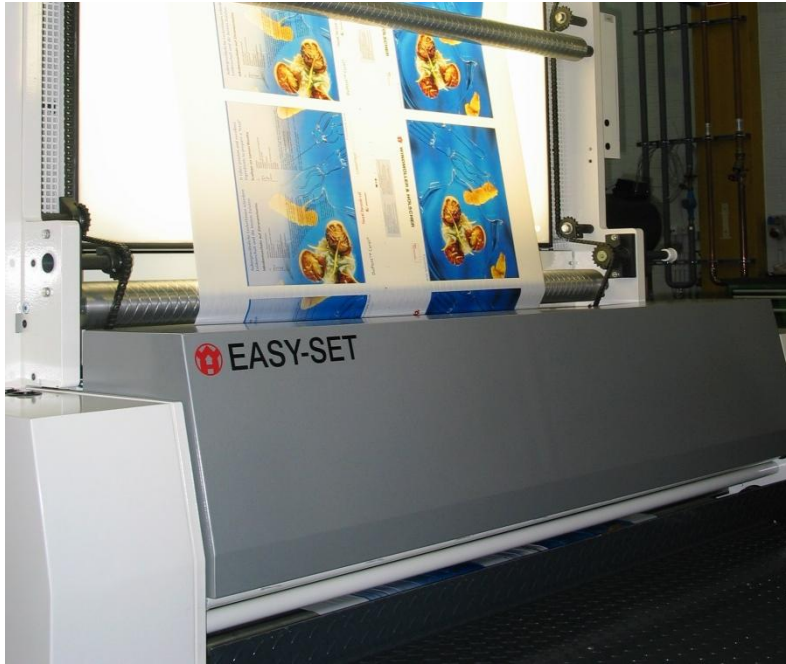


# EASY-SET HD

- Optical (dynamic) system
- Evaluation of printouts under real production conditons
- 100 % full-image analysis (line camera)



# EASY-SET HD



- Compact and protected illumination and camera unit
- 2-3 modular Image-Capturing-Units (ICMs)  
(2 ICMs: up to 1360 mm, 3 ICMs: up to 2040 mm)
- Line camera technology for 100% inspection



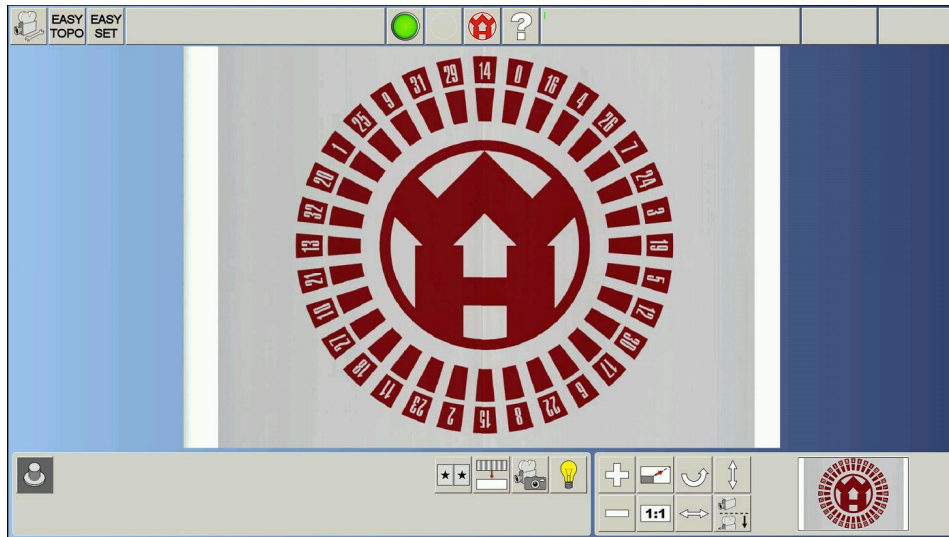


# EASY-SET HD

- **True Dynamic measurement under real production conditions**

Incl: adapter-, sleeve-, tape-, plate-, design- and speed related tolerances!

## Live impression setting



## EASY-SET HD Topography



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# EASY-VIEW

Print Inspection  
made by



# EASY-VIEW



**EASY VIEW**

(Full View)

**Web Video**

(Full View)



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# Innovative solutions for efficient production

made by



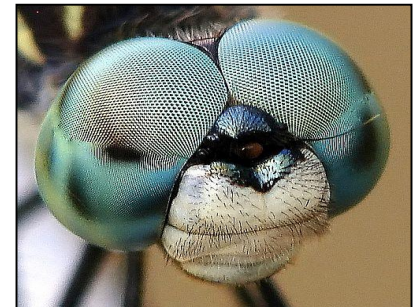
**EASY-COL**



**EASY-SET**



**EASY REG**



**EASY-VIEW**

