



**gallus**  
A Heidelberg Group Company

# Gallus Labelfire

## Digital label printing - From file to finished label in one pass!

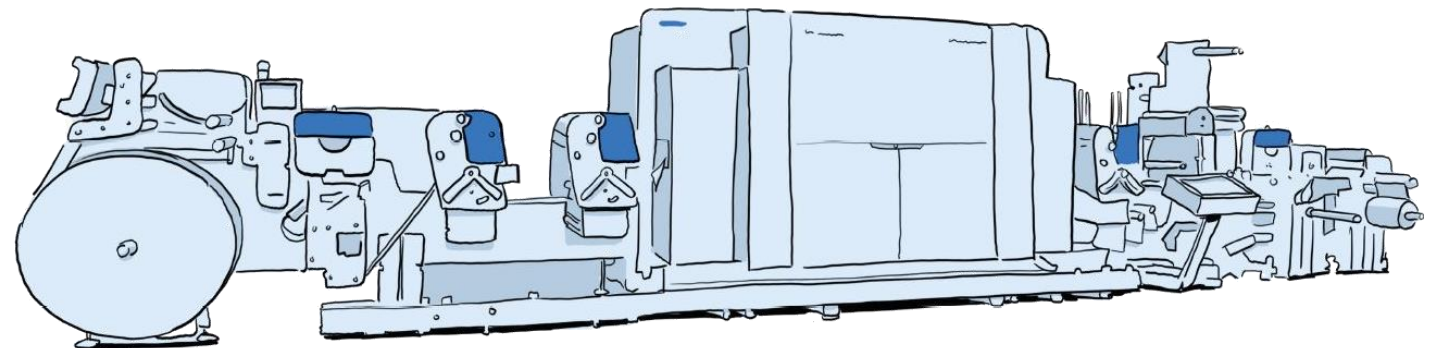
**Media Day INSIGNIS-Etiketten, Vienna**

Uwe Alexander, Manager Pre-Sales Support Digital Solutions at Heidelberg/Gallus



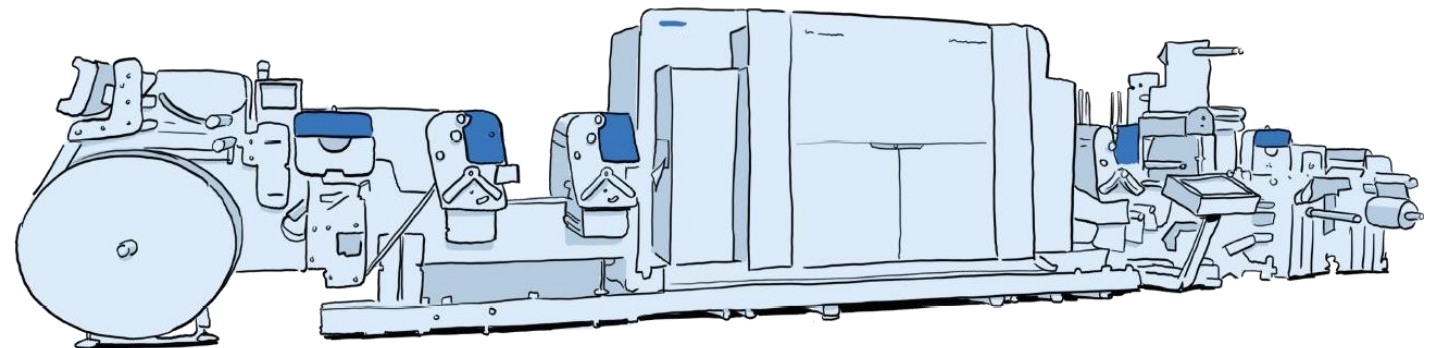
# Agenda

- Labelfire in the field
- Why digital?
- Key features → benefits for label converters
- Integration of software workflow and machine
- DEU – Digital Embellishment Unit
- Our today's production jobs



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# Gallus Labelfire in the Field

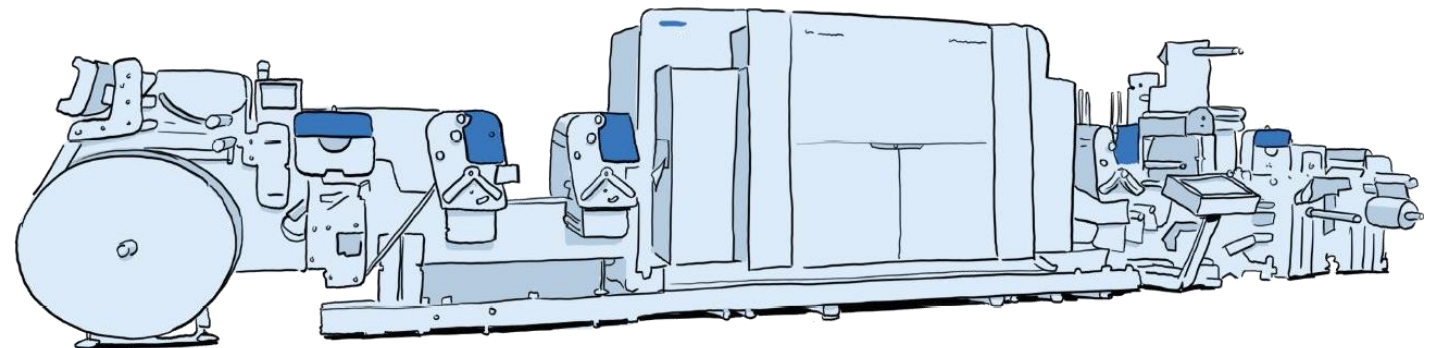
- At customer in production/installing >30
- 2 customers have 2 machines
- One customer operates 4 machines
- Several customers want to go for 2nd or 3rd machine
- 5 machines have been sold to Italy





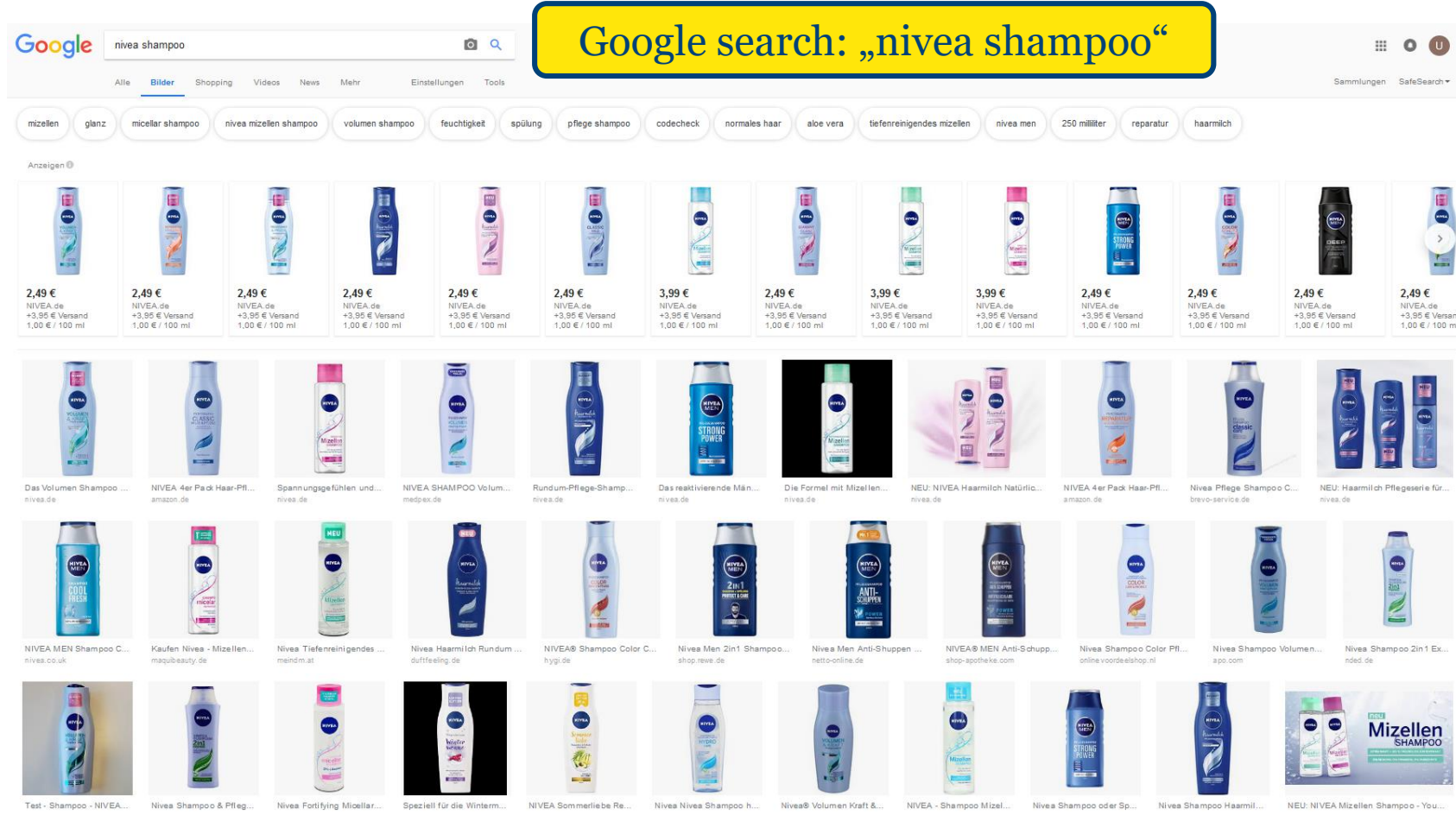
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# Why digital?

## Number of variants is going up



Source: Google search Nivea Shampoo

# Why digital?

## Run length getting shorter

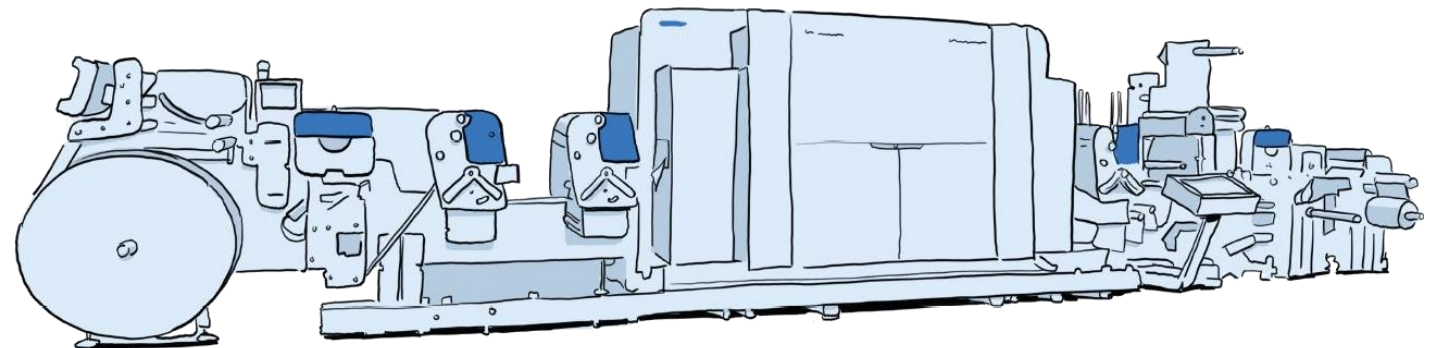
### THE FINAT DIGITAL LABEL MARKET STUDY:

Given the rapid rate of job size contraction in these categories, the point at which average run sizes will reach 'breakeven' status on conventional presses is just a few years away. Currently around 18% of the total value of Europe's health & beauty/ cosmetics sector is made up of digitally printed labels. Should the next few years deliver similar job size contraction rates, nearly 100% of all jobs produced for the health & beauty/cosmetics sector will be at, or below, the breakeven threshold on conventional presses by the end of 2018.

Rapidly Progressing toward a Digital-Only Future? End-Use Categories with Smallest Average Job Sizes (CONVENTIONAL PRESSES)		
Sector	Average Job Size - 2016	Average Annual Decline since 2014
Health & Beauty/ Cosmetics	3,338 linear meters	▼ 35%
Pharmaceuticals	2,136 linear meters	▼ 7.5%
Industrial Chemicals	2,925 linear meters	▼ 20%
Consumer Durables	1,860 linear meters	▼ 24%
Source: LPC, Inc. for FINAT RADAR		

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# Gallus Labelfire: Put yourself ahead in digital label printing



→ Inline converting



→ Best in class print quality



→ Excellent inkjet quality



→ High productivity



→ Print on unprimed substrates



## Inline converting



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Modularity and flexibility: labels can be produced in one pass – from file to finished label



The Gallus Labelfire is an investment for the future. It can be upgraded at any time to meet the needs in the future.



## Inline converting



Thanks to the **modularity** and **flexibility** of Gallus Labelfire and its embellishment and inline functionalities, your labels are **produced in one pass, from file to finished label**. This means a higher productivity due to less waste and less manpower.

- Labels must always be die-cut
- The largest volume of labels in the market are printed labels with a varnish. This kind of label can easily be produced in one step. Digital printing, conventional or digital varnish (DEU) and die cutting.
- Sometimes you have to print small quantity of labels with a backside color on glue.  
That is practically impossible. This can only be economically produced in one go.
  - ➔ Why should such small amounts of labels continue to be produced conventionally if digital is cheaper?
- Sometime you need to print an underlay in white (clear/clear labels, barcode, etc.).

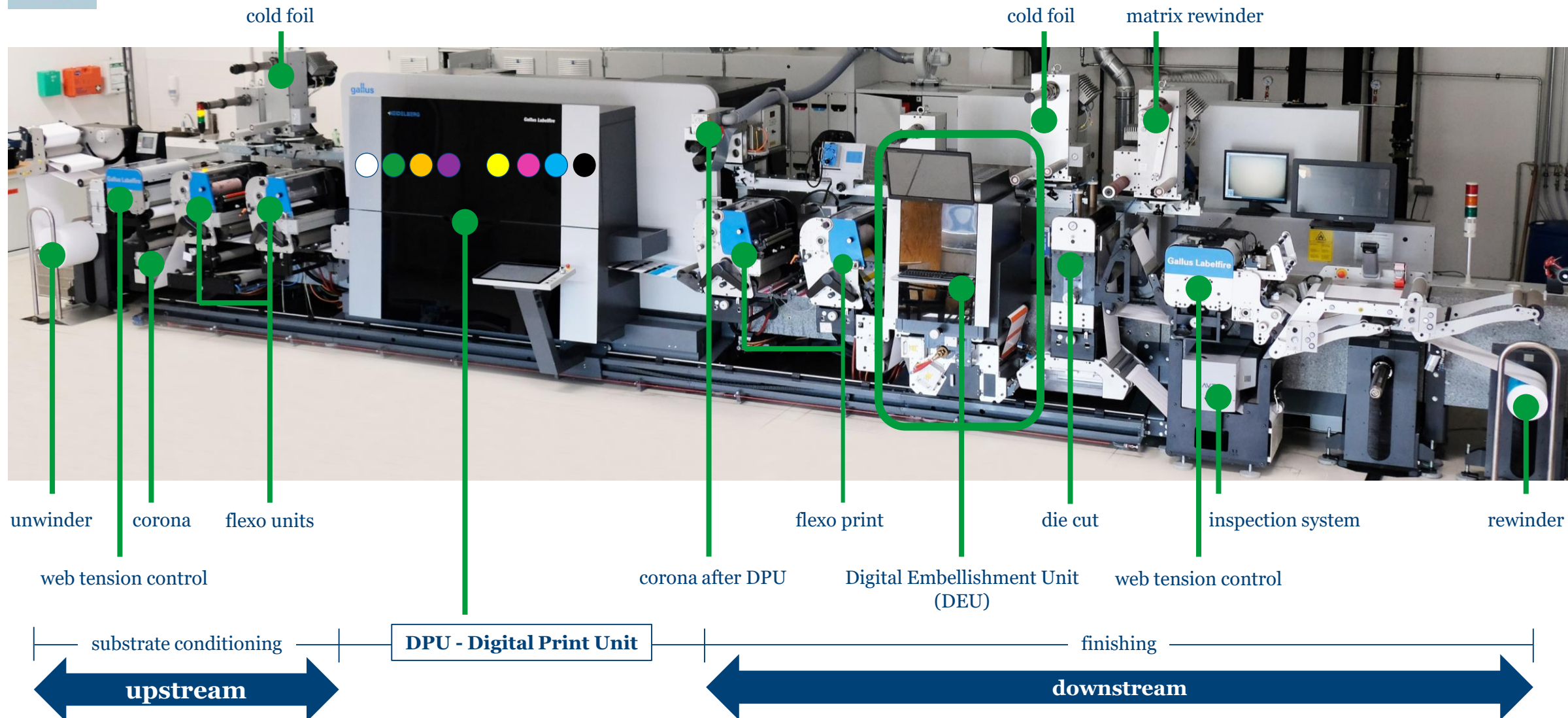
These are just a few of many points that speak in favour of a hybrid solution.  
If I don't need it today, then maybe tomorrow.

**The Gallus Labelfire 340 is an investment for the future.**

**The Labelfire 340 can be upgraded at any time to meet the needs in the future.**



# Inline converting - From file to finished label

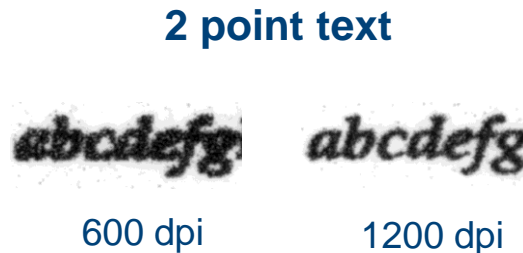
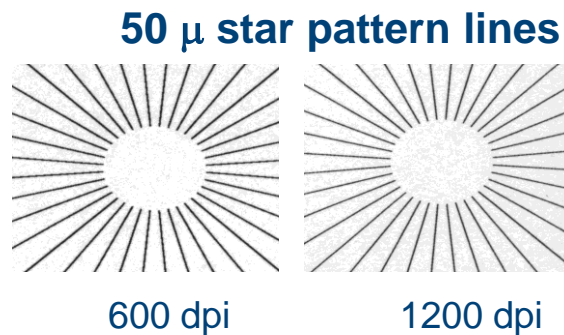




## Best in class print quality



- An excellent Pantone gamut coverage at 7 colors or even 4 colors and a perfect gamut stability regardless of humidity or temperature in your production site
- Wherever you are located in the world, Gallus Labelfire produces always in the same high quality standard, at 1200 x 1200 dpi native with its superb printing efficiency, stability and reproducibility
- Self developed inks (4 years of development and experience ensure highest print quality and process stability)







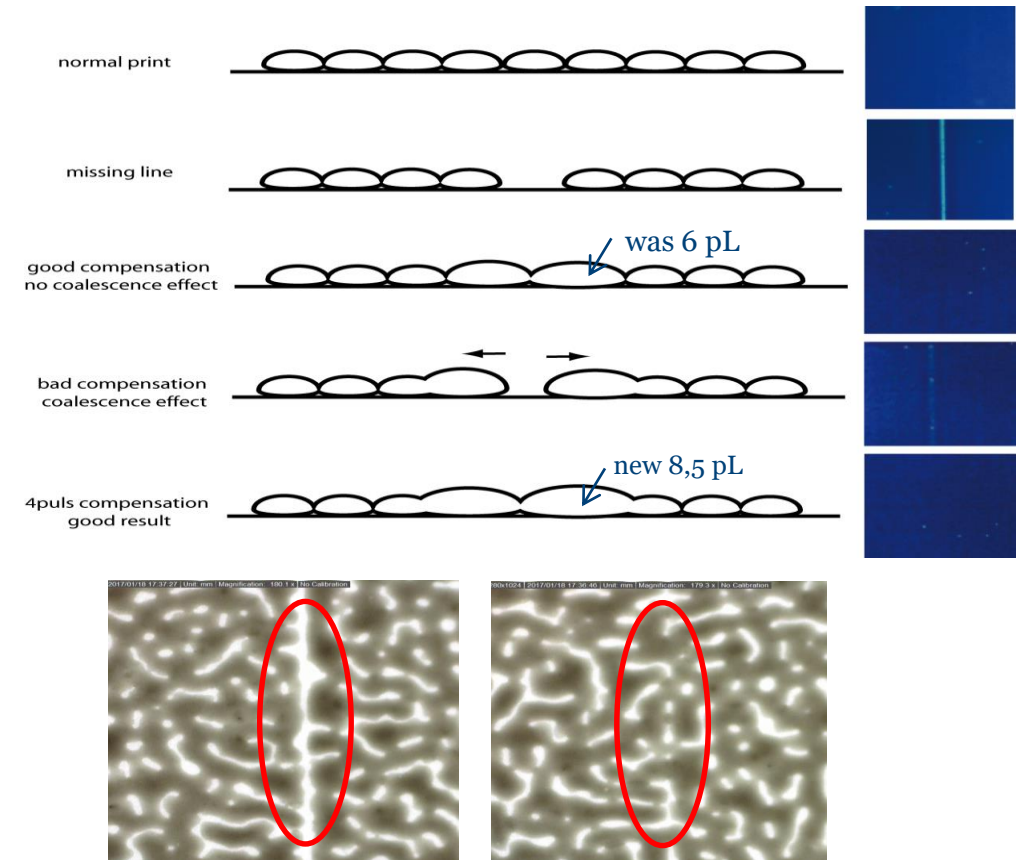
## Excellent inkjet quality



### Nozzle compensation - no “white line effect”

Thanks to the new inkjet compensation, the Gallus Labelfire produces with a matchless advantage to other digital printing systems.

- Only true the unique camera system from Heidelberg can missing lines be detected, at all colors on all materials  
As example: withe on withe
- Our patented compensation software (algorithm) is crucial to ensuring that the missing lines are always properly compensated.  
This in halftone or full-area printing without **density un-evenness**





## Excellent inkjet quality

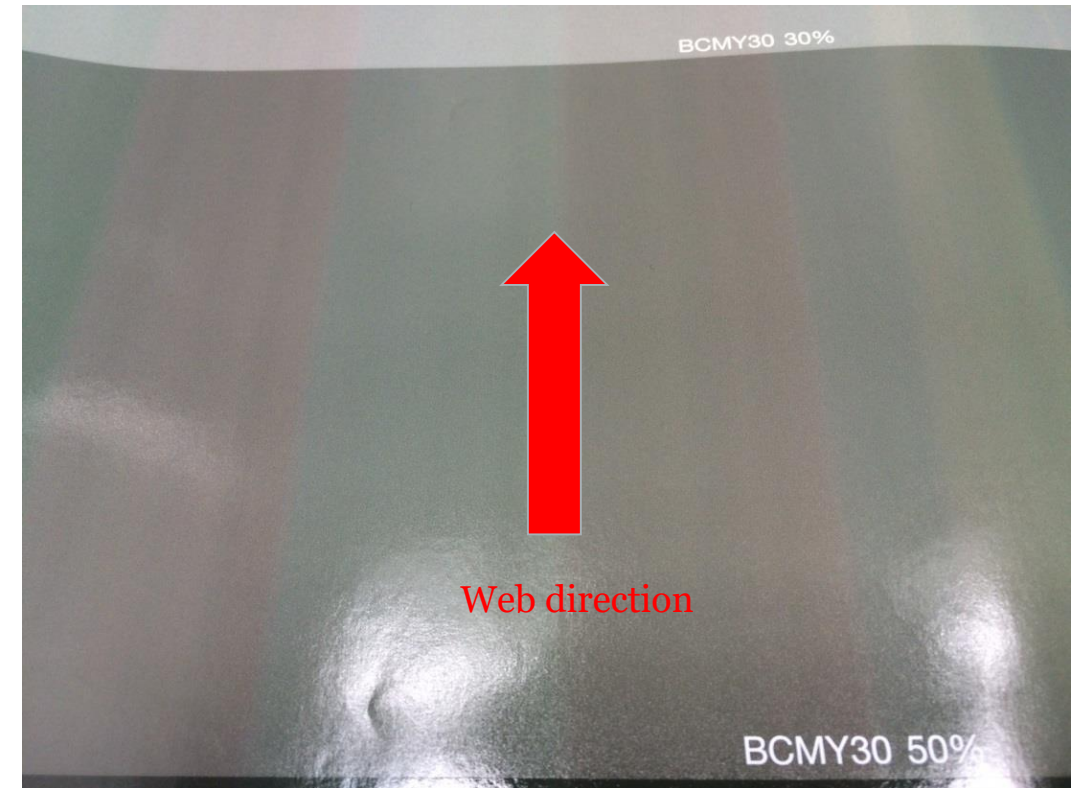


### **Nozzle compensation - no “density un-evenness”**

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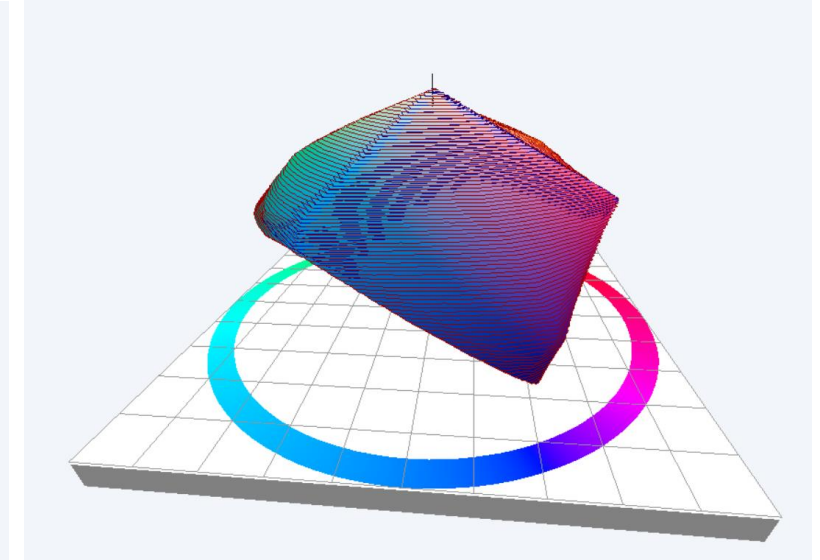
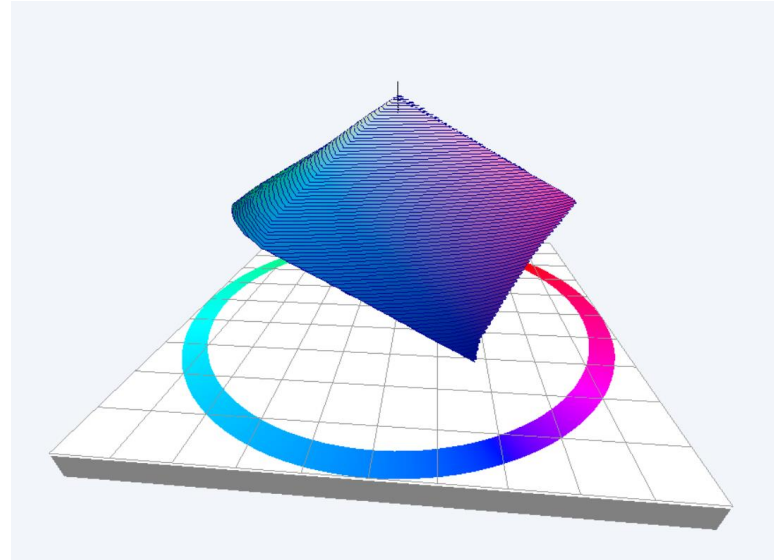
- Another matchless, not to be underestimated advantage of the nozzle compensation is the “density un-evenness” compensation
- When a single head has to be changed the adjustment the most important criteria to avoid the “density un-evenness”

**Better detection of failed nozzles.**  
**Better density compensation.**





## Excellent inkjet quality Comparison of Gamut 4c+w and 7c+w



Color distance:	Percentage coverage of Pantone Coated Plus by 4c+W:	Percentage coverage of Pantone Coated Plus by 7c+W:
$\Delta E_{2000} < 2$	77%	93%
$\Delta E_{2000} < 3$	85%	96%
$\Delta E_{2000} < 4$	91%	98%

Note: As for all printing methods color gamut is depending on the used substrate.  
These figures are based on “UPM Digifines Gloss”.



## Excellent inkjet quality Comparison of Gamut 4c+w and 7c+w

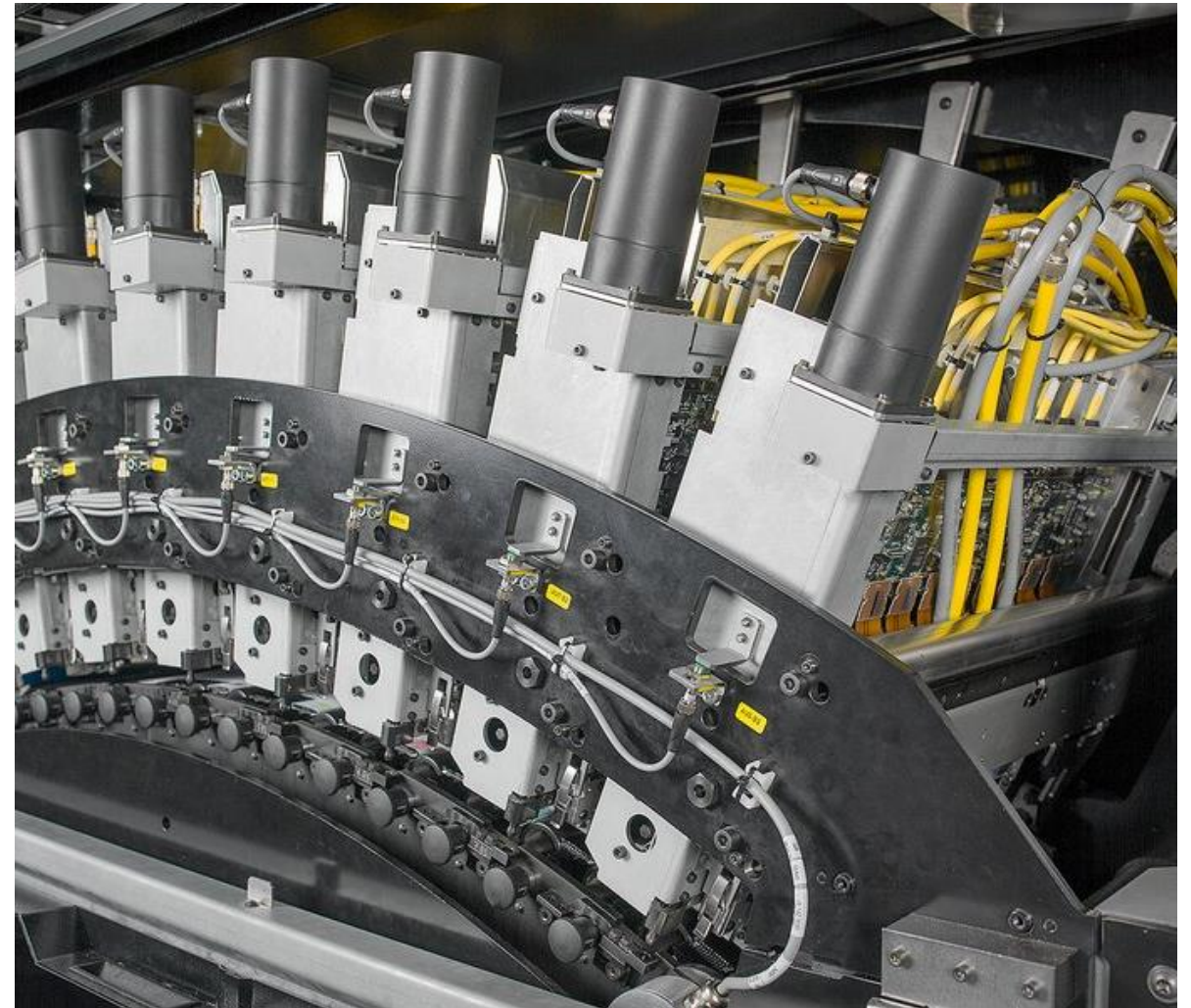


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Which configurations are available for the digital print unit (DPU)?

- 4C → CMYK\*
- 4C+W → white + CMYK\*
- 7C+W → white + green + orange + violet + CMYK\*

\*Please keep in mind that Labelfire inks CMYK are much more vivid compared to Process standard Offset.







# High productivity Consumer based cost model for service & consumables

**Ink Savings = Cost Savings = Better margins**



Digital		Flexo
€ 2.25	color part	€ 2.25
€ 7.57	underlay	€ 0.69
€ 9.82	cost /1000	€ 2.94
€ 0.93	cost/ m²	€ 0.26





# Print on unprimed substrates



The Labelfire offers a high substrate variety, from foil over paper to un-coated paper; in most cases even a pre-treatment with a special primer is not necessary.

## Paper



## PE White



## PP clear/clear



## Metal coated substrate



## Slightly structured substrate (Verge Blanc)



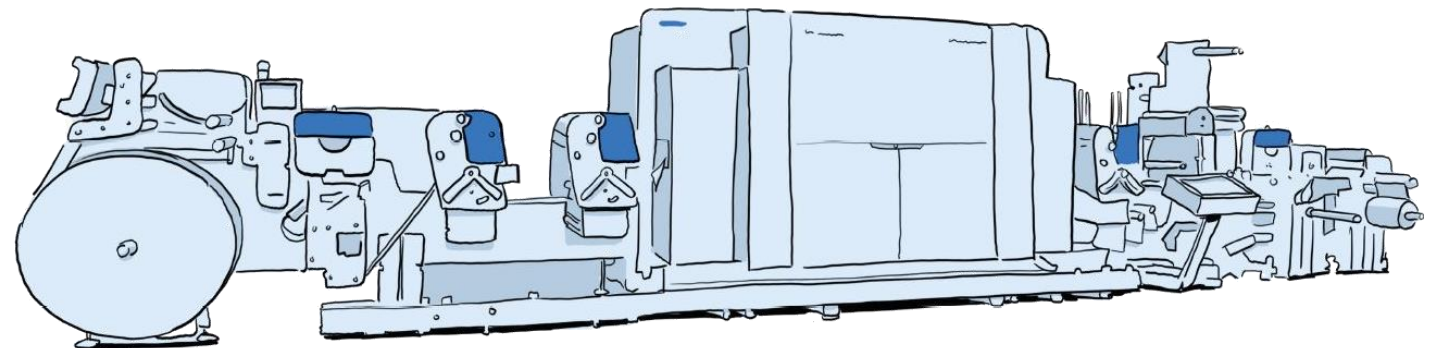
## Tube Laminate (in progress)



and many more other substrates ...

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- Additional functionalities:
  - VDP – variable data printing
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# Integration of software and machine

## One fully integrated system

**Benefits:** Simplified operation

**There is only ONE panel (HMI)**  
**to run the press (digital and conventional)**



**The DPU is perfectly integrated in the conventional machine. There is only one user panel to operate a Labelfire**



# From file to finished label – all in one pass and from one supplier

Prepress and  
Software



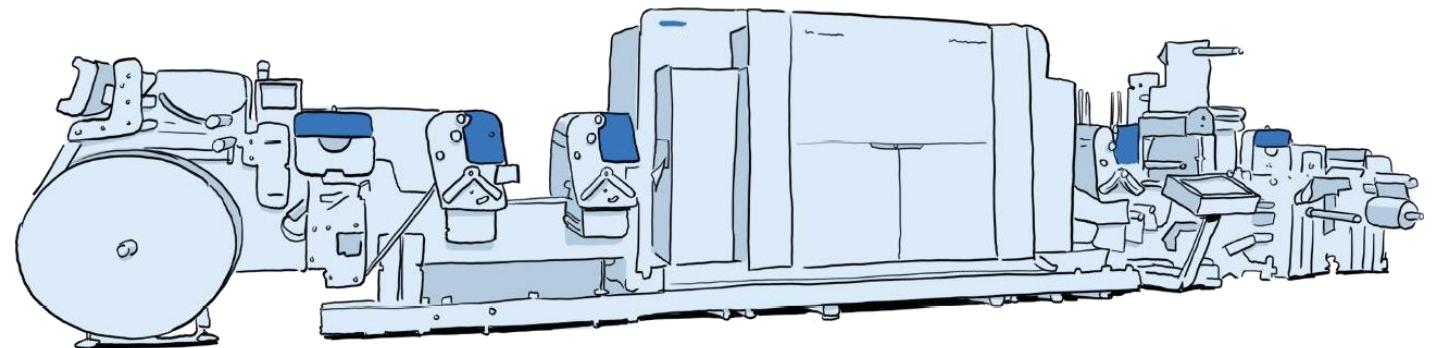
Equipment

Consumables



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# DEU – Digital Embellishment Unit (Steinemann – Schmid-Rhyner – Gallus)

## Technology:

- Achieve with UV Inkjet @ 600 x 600dpi (native)
- Spot **Gloss** and spot **Matte** effects (also over print varnish with imprint window)
- **Relief** and **Haptic** effect
- Digital **Embossing** up to 100g/m<sup>2</sup> at reduced speed

## Customer Benefits:

- **Faster Change** over – now last minute changes are possible
- **Minimized Cleaning** – more available press time
- **No Tooling Costs** and **No Admin Costs** – waste no money for unproductive tasks
- **Faster Turn Around Times!** – no waiting for new tools
- **One-pass-productivity** for multiple effects with **Minimized Web Path** (one unit vs. three)



