



gallus
A Heidelberg Group Company

Gallus Labelfire

Best of both worlds.



Gallus Labelfire

Higher productivity through optimal integration

**For the highest efficiency in label printing:
The Gallus Labelfire combines best in class
digital printing technology with the benefits
of conventional printing and processing
technology. Thanks to its modular structure,
it offers needs-oriented configuration – from
reel-to-reel to hybrid functionality for the
finished label.**



**A complete system from a single source:
the machine, software and inks form a
unit and are perfectly matched to each
other.**





**The innovative digital
printing system combines
the best of two worlds:**

the flexibility and versatility of digital
printing and the reliability and precision
of hybrid technology.

**HYBRID
PERFECTION**
INTEGRATION
PERFECT

It doesn't get any more hybrid than this

UV inkjet combined with flexographic printing and screen printing in a single machine

The compact Gallus Labelfire digital production system combines ultra-modern UV inkjet printing quality with the inline productivity of flexographic printing and the benefits of screen printing. This is made possible by Fujifilm Drop-on-Demand inkjet technology in conjunction with tried-and-tested conventional Gallus embellishment units as well as complete integration into the Prinect® workflow.

See the cost-effectiveness and efficiency for yourself

Its modular set-up – from reel-to-reel or from reel to the finished, die-cut label – means that the Gallus Labelfire can be perfectly adapted to suit your specific requirements: from a fully digital label press to a fully-equipped hybrid press, the Gallus Labelfire can be fitted out with the entire range of conventional finishing and embellishment options, e.g. primer, solid colors, security or cold foil elements, spot colors, varnish and lamination.

The Gallus Labelfire will help you to move significantly closer to optimised processes

Not only will you be able to masterfully implement perfect short runs and growing numbers of variants, but you will also be able to quickly respond to changed requirements such as in the processing of variable data, at any time.

Choose from two machine types:

Gallus Labelfire 340

This 7-colour inkjet system delivers up to 96 percent of the simulated PANTONE® PLUS colour scale in outstanding quality.

Gallus Labelfire E 340

As much as 85 percent of the simulated PANTONE® PLUS colour scale is attained in the 4-colour range.

Both machines: A native resolution of 1200 × 1200 dpi ensures optimum printing quality at speeds up to 70 m/min.



Labelfire E 340

* Note: As with all printing process, the colour space depends on the substrate used. These figures are based on "UPM Digifiness Gloss".

Gallus Labelfire

Highlights



Inline production

The modular structure and flexibility of the Gallus Labelfire, as well as its embellishment and inline functions, means that your labels are created in a single pass, from file to finished label. That means increased productivity with lower waste and less effort.



Unparalleled inkjet quality

With newly developed inkjet compensation, the Gallus Labelfire offers an unbeatable advantage over other digital printing systems, as this innovative development prevents the white-line effect.



Print without pretreatment

The Labelfire allows you to print on a wide variety of substrates, from film to paper and even uncoated papers. In most cases, you do not even need to pretreat the substrate with a special primer.



First-class printing quality

The Gallus Labelfire offers outstanding simulated PANTONE® PLUS colour scale coverage in both 7- and 4-colour applications, and also ensures perfect colour space stability, regardless of the humidity or temperature in your production areas. No matter where in the world you are producing, with a Gallus Labelfire output will always be in a resolution of 1200 x 1200 dpi, with outstanding efficiency and printing stability, in consistently high quality and uniform reproducibility.



Maximum productivity

Proven printing capacity and optimal printing quality, combined with a production speed of up to 70 m/min – that is what you can achieve with the Gallus Labelfire, regardless of the number of colors you use – 7c* or 4c*.

* This maximum speed may decrease when printing digital white with high opacity.

Inline processing in a single step

Maximum integration for the highest productivity

The digital flexibility of the Gallus Labelfire inkjet printing unit is perfectly supported by the integrated, tried-and-tested conventional Gallus ECS modules. The strengths of digital printing, combined with those of the digital print-optimised inline finishing processes of a conventional label printing machine open up completely new possibilities: for the first time, labels can be varnished, laminated, decorated with cold foil and further processed with a die-cutting unit, in a single operation. The conventional modules allow for the use of primer, solid colour, safety or cold foil elements, varnish or lamination without interrupting production in the process – no matter how complex the label.

What's more, with the Gallus Labelfire it is possible to combine special effects such as metallic or neon colors, as well as additional flexographic and screen printed white even before digital printing, and to add spot inks.

Matte and gloss effects as well as spot coatings with the Digital Embellishment Unit

The Digital Embellishment Unit, or DEU, can coat inline as part of the UV inkjet process, applying matte and gloss effects as well as tactile spot coating effects to the substrate in varying layer thicknesses. It is even possible to create digital cold foils or a three-dimensional metallic effect (metallic doming).

Customers using this Digital Embellishment Unit can enjoy shorter set-up times than for conventional solutions, as well as minimal cleaning effort. Thanks to the digital technology, there are no additional tooling costs, and as a result, there are also no extra costs for manufacturing and managing additional tools.



The DEU can create matte, glossy and spot colour effects digitally.



Optional slitter available in rotary blade or razor blade design.



Semi-rotary die-cutting unit with compensator.



The short 1.1 m web path ensures minimum waste and therefore maximum profitability.



Easy and reliable: the servo-driven screen printing unit.

**MAXIMUM
QUALITY**

**Outstanding simulation of
PANTONE® PLUS colour
scale coverage**



Captivating print quality

The print quality of the system is equal to that of high-resolution offset printing:

- Native (physical) resolution of 1200 × 1200 dpi with a droplet size of just 2 pl and up to 200 shades of grey.
- Visual resolution of 2400 × 2400 dpi.
- Small characters and letters and fine lines and colour gradients can be printed to as much as zero percent without sheet breaks.
- The smallest current droplet size in the printing industry allows smooth, semi-gloss finishes to be produced and ensures improved adhesion and hardening of the colour while using less ink.
- Consistent print quality across the entire sheet width thanks to inkjet head assembly with seamless transitions.
- Expansion of the colour space to include orange, violet and green as well as 7-colour separation allows for PANTONE® PLUS colour scale a simulated coverage of up to 96 percent.
- High colour stability, regardless of humidity or room temperature
- The specially developed screen and colour management algorithms, in conjunction with our own specially developed ink formulations, produce an outstanding print result, even for challenging subjects.
- Thanks to first-class inkjet compensation, with the aid of camera inspection and special algorithms, line formation in white or colour can be prevented – the machine compensates automatically during the printing process.



The unique rhombic shape of the heads makes it easier to achieve a seamless fit between the heads to create a smooth colour progression.



Inter Color Pinning guarantees high print quality and allows a wide variety of substrates to be used.

Gallus Labelfire

The colour system

The Saphira® Digital UV inks we have developed in-house especially for the Labelfire ensure that the digital printing system is perfectly tuned and allow for stable, high-quality production on a wide range of substrates. Particularly when using seven process colors plus white, the system offers impressive and outstanding colour space coverage and perfect colour gradients. The inks are distinguished by their high wear resistance, good adhesion and resistance as well as lightfastness of >7 for all colors. The 10-litre “Bag in Box” system allows for clean, simple ink changes in non-stop operation. In order to ensure maximum durability of the printing heads, Gallus also supplies additional consumables that are perfectly coordinated to the system, e.g. for automatic, contact-free cleaning of the printing heads.



Colour sequence in the digital printing system: digital white, green, orange, violet, yellow, magenta, cyan and black

Saphira® Digital UV inks for optimum printing results

- Inks for general applications and for food packaging printing
- Lightfastness >7 for all colors
- Simulated PANTONE® PLUS colour scale coverage of 96 percent for optimal reproduction of custom colors
- Compliance with general regulatory requirements REACH, RoHs as well as the applicable printing inks guidelines.
- Available from the Heidelberg online shop and via our helpdesk at heidelberg.com



The 10-litre “Bag in Box” system makes changing inks easy.

Perfect printing quality through inline quality management

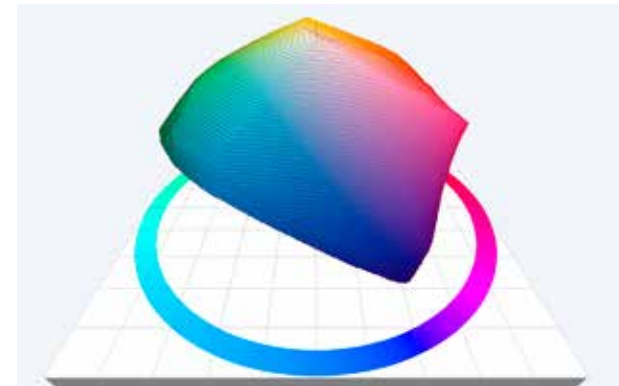
Thanks to the camera detection in the digital print unit, combined with our specially developed algorithms, white and dark lines and the phenomenon of “ghosting” are a thing of the past. Enjoy perfect labels in flawless quality.



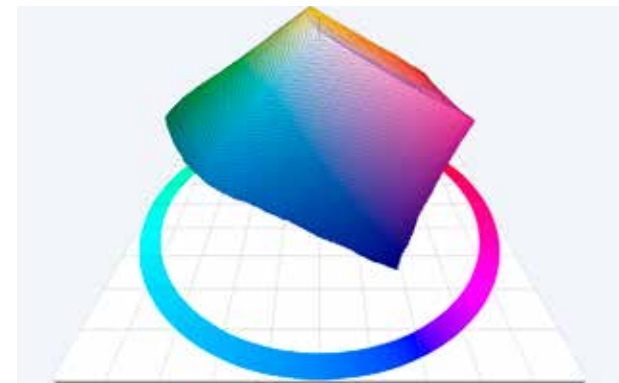
Eight-colour printing system for a bigger colour gamut.

* Note: As with all printing process, the colour space depends on the substrate used. These figures are based on “UPM Digifiness Gloss”.

Gallus Labelfire colour spaces



The 7-colour inkjet system covers up to 96 percent of the simulated PANTONE® PLUS colour scale in outstanding quality.

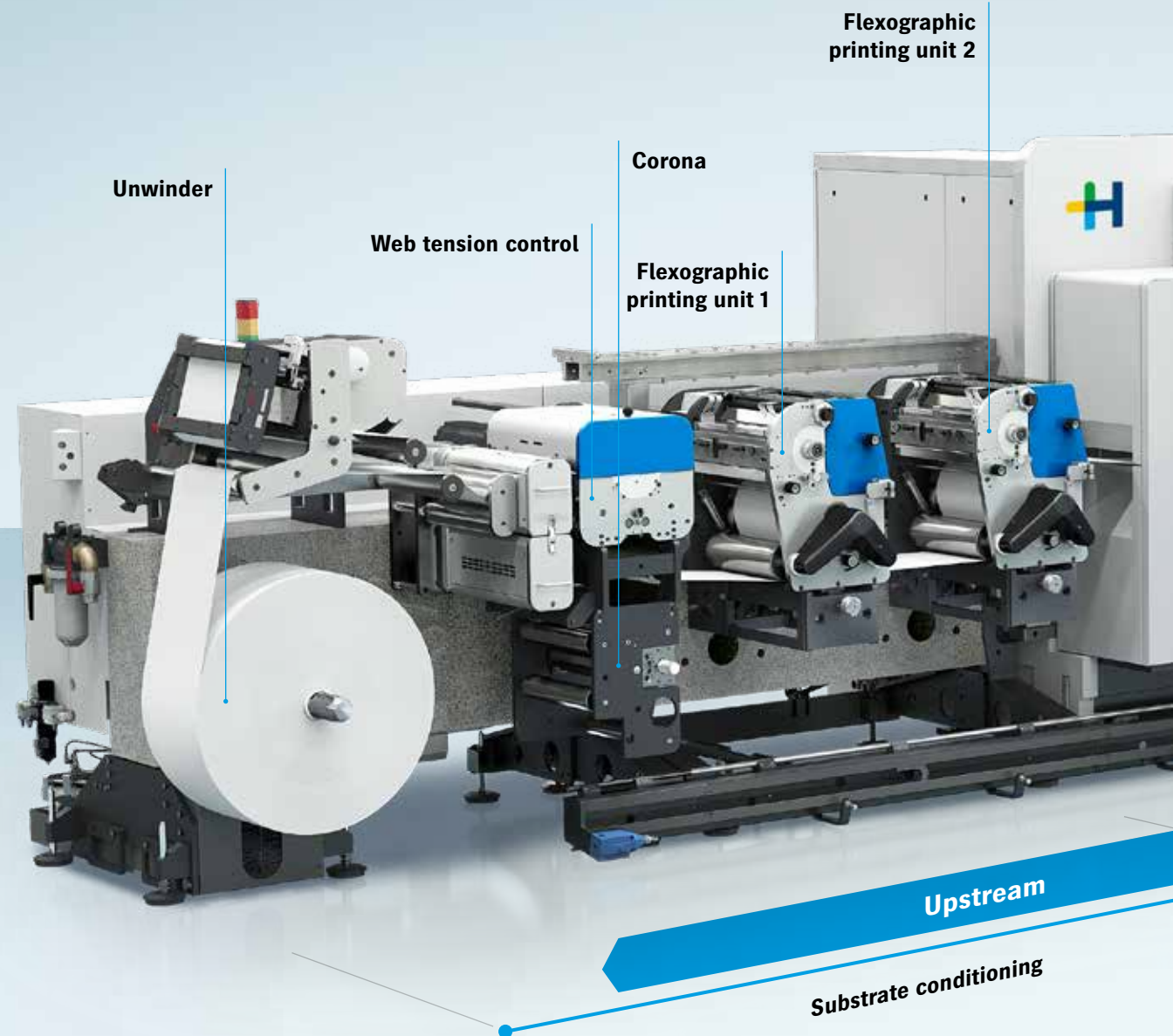


As much as 85 percent of the simulated PANTONE® PLUS colour scale is covered in the 4-colour range.

The best of both worlds

Optional equipment:

- Available as a 4c variant with white option or as 7c + white
- “fullVDP” variant for fully variable data printing
- Excellent upstream functionalities (before the digital print unit/DPU):
 - Delam/Relam for reverse-site printing on glue
 - Screen printing unit for highly opaque finishes before the DPU
- Downstream functionality for digital embellishment effects:
 - Digital Embellishment Unit (DEU) for matte or gloss coating, tactile effects and cold foil
 - Semi-rotary die-cutting unit, fully rotary available as an option



DPU-Digital
Print Unit

Flexographic
printing unit 3

Cold foil

Semi-rotary die-
cutting unit

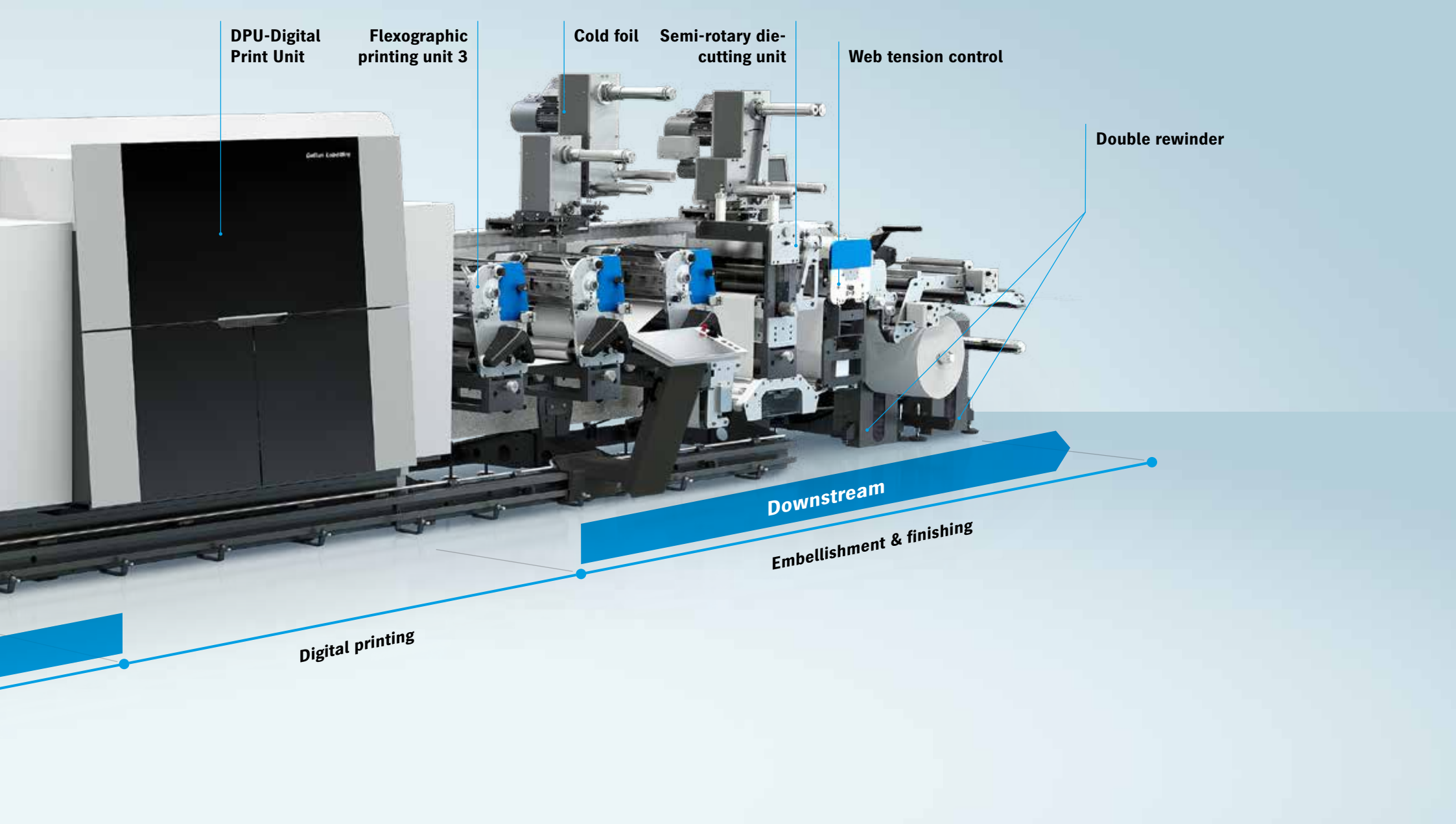
Web tension control

Double rewinder

Downstream

Embellishment & finishing

Digital printing





**PERFECT
INTEGRATION**

INTEGRATION
INTEGRATION

Easy and integrated Prinect DFE software workflow management

The Gallus Labelfire is supplied as a production-ready complete solution – both the software and hardware are fixed components. Heidelberg's Prinect® workflow software is used for the Digital Front End (DFE). The DFE is an essential, integral component of the digital print system. It enables printers to focus completely on the production of the printing machine, while the data is prepared and rendered ready for printing in optimal quality in the previous step.

Prinect software covers the following areas:

- Machine control: general set-up and adjustment of the digital print unit.
- Prepress: Processing of incoming customer data for printing.
- Production: Configuring of print queues and printing activation and control.

The software modules allow substrates to be qualified and corresponding colour profiles to be created in order to simulate custom colors as precisely as possible. Prinect also helps to set up and control the machine and to transfer the correctly processed print data to the digital print unit in the desired order. During this process, the data processing and colour management have a significant effect on the print quality.

One control panel for everything. The Gallus Labelfire Human Machine Interface (HMI)

On changing to a new job, the Gallus HMI touchscreen control panel transfers the data to the pre-print stage at the touch of a button following processing.

The benefits for you:

- Simple, intuitive operation.
- Control of conventional modules with the same operating logic as the digital unit.



The HMI covers the following areas:

- Machine control: General configuration/adjustment of conventional process units.
- Control unit for areas including: print job order, printing heads, colour management and conventional printing and finishing processes.

Variable data printing

The Labelfire can also print variable data. Label applications in this area include numbering, variable codes (barcodes and 2D codes) and short text such as names. In order to address this challenge, the data can be printed particularly quickly in the Labelfire as "Industrial Variable Data" (iVDP). Full variable data can also be printed.

Full variable data printing leaves nothing to be desired: in addition to iVDP functionalities, image elements can also be varied. Every label is unique.



**HIGH
PRODUCTIVITY
INTEGVALION
BEKLECL**

Semi-rotary die-cutting unit for minimal tooling costs and a wide variety of substrates.



Printing functions

With the Labelfire, you are equipped for the future. Thanks to short configuration times, minimised waste and low tooling costs, you can enjoy efficient production even on short runs. The machine also features all standard print functions, and the double rewinder enables interlaced winding of small reels.

Always in control of costs

The Gallus Labelfire digital machine system combines the speed of conventional label printing with the flexibility of digital printing. In conjunction with the Prinect software, the digital technology facilitates the processing of variable data as well as versioning during label printing. Job-specific fixed costs and costs for versioning and customisation can also be reduced. This means that the cost-efficient production of small and medium-sized runs exceeding 500 linear metres becomes standard.

At the same time, the conventional print functions of the Gallus Labelfire offer additional options with respect to embellishment and inline finishing, e.g. for varnishing, laminating and die-cutting. A fair, usage-dependent business model ensures ink prices and services are in line with the market and that label printers can benefit directly from their process optimisations.



the double rewinder enables interlaced winding of small reels.

Gallus Labelfire

Technical data

Gallus Labelfire 340/E 340 machine system

Digital print unit

Print process	UV – Piezo DoD – Inkjet
Print speed	50 m/min with semi-rotary die-cutting unit 70 m/min with Speed package
Productivity	max. print area 1.020 m ² /h
Print resolution	1200 × 1200 dpi native at a droplet size of 2 pl visual resolution approx. 2400 × 2400 dpi
Number of digital inking units	Labelfire 340: 7c + white Labelfire E 340: 4c with optional white
Colors	white + GOV (green/orange/violet) + CMYK (cyan/ magenta/yellow/black)
Print width	max. 340 mm
Substrates	mono films, papers and composite materials 50–350 µm can be extended to 20–400 µm for special applications
Size (L × W × H)	11500 × 4500 × 2200 mm (basic configuration)
Variable data	iVDP (industrial variable data processing, e.g. barcodes, QR codes, alphanumeric text), PDF/VT fully variable data printing (optional)
Interfaces	to conventional pre-press software solutions

Conventional inline production platform

Reel diameter	max. 40" (1016 mm)
Number of conventional processing platforms	5 plus die-cutting unit
Flexo unit format length	254–508 mm (10"–20")
Substrate conditioning	web cleaning, corona, anti-static
Finishing	screen printing, varnishing, cold foiling, laminating, die-cutting, matrix rewinder, longitudinal cutting
Die-cutting unit	semi-rotary, format length: 6"–20" (152–508 mm), rotary as an option

Connected loads

Connection power	70 kW (3P + PE)
Voltage	400 V / 50 Hz or 480 V / 60 Hz
Compressed air	500 l/min; with 6–8 bar, oil- and water-free
Exhaust air	approx. 500 m ³ /h; exhaust air temperature max. 50 °C / ozone output during operation approx. 0.8 mg/m ³
Compliance	CE, GS and UL

Remote access

✓

All technical details are approximate values. Technical details depend on machine configuration, job, web width, consumable materials, substrate and other factors where applicable. We reserve the right to make technical and other changes.



Heidelberg and Gallus: a strong network with global expertise

Optimal customer support worldwide

At Gallus, our clear goal is to secure sustainable success and production for our customers. This is possible thanks to the unique service portfolio Gallus is able to offer, arising from our consistent focus on customer value, continuous further development of our machine systems and the extensive advantages of the Heidelberg service network. Gallus customers have a competent, committed and prudent partner at their side, which supports them from the first step in the print job process to the finishing of the final product.

Our mission: service excellence

At Gallus, our mission is service excellence, which we achieve through extraordinary performance, customised services that add value and an uncompromising focus on the customer.

Gallus Rotascreen – easy integration for top results

Screen printing is ideal for creating brilliant, high-quality images in any situation requiring a high level of coverage, precision and colour intensity. Gallus rotary screen printers can be integrated easily into most Gallus machines. Printing systems with screen printing combined with flexographic printing and hot-foil embossing are every bit as manageable as connections to the various processing functions. Printers can be easily exchanged and the machine system thereby reconfigured for each print job.



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