

Success and Security
for the Labelprinter.

gallus

Gallus Labelfire 340

Industrial digital converting.



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Member of the Heidelberg Group

Gallus Labelfire 340

**Increased
productivity
through
optimised
integration.**

The Gallus Labelfire 340 combines the latest digital printing technology with the benefits of conventional printing and further processing technology and is raising the bar in label printing. Jointly developed by Gallus and Heidelberg Druckmaschinen AG, the new digital inline label printing system features a printing module with state-of-the-art inkjet printing heads. The strengths of digital printing combined with inline finishing processes that have been specially optimised for digital printing enable the Gallus Labelfire 340 to varnish, embellish and further process labels inline – from the roll to the finished die-cut label in a single production operation.

The industrial ink-jet solution from the leading provider of inline systems.



Gallus Labelfire 340

Innovative quality of the highest standard

With the Gallus Labelfire 340, the engineers at Gallus and Heidelberg have succeeded in developing a highly innovative digital converting system. The compact digital production system combines unrivalled UV inkjet printing quality and maximum-efficiency digital printing with the inline productivity and speed of flexographic printing. It goes without saying that this industrial inkjet press system also meets Gallus's high standards in terms of register accuracy.



Eight-colour printing system for a bigger colour gamut.



Semi-rotary die-cutter for minimised tool costs and a wide choice of substrates.

Improved resolution and offset quality

The new Gallus Labelfire 340 digital production system enables label printers to achieve levels of print quality that match those of high-resolution offset printing. This is reflected in the native (physical) resolution of 1,200 × 1,200 dpi with a droplet size of just 2 pl and up to 200 grey scale values, corresponding to a visual resolution of 2,400 × 2,400 dpi.

The high physical resolution of the inkjet heads offers a real advantage, particularly when it comes to small symbols and characters as well as fine lines and gradients down to zero percent. The smallest droplet size in the printing industry to date results in smooth, satin-finished surfaces, improved ink adhesion and curing and minimal ink consumption.

The unique shaped inkjet print head enables seamless inkjet head stitching, resulting in a smooth print across the entire web. The combination of digital white, CMYK, the colour space enlargement colours orange, violet and green, as well as 7-colour separation mean the Gallus Labelfire 340 press system can cover a large portion of the Pantone colour space. All of this is made possible by the use of specially developed screen and colour management algorithms that Heidelberg has been utilising with great success in its offset prepress solutions for decades.



Inter Color Pinning ensures excellent printing quality and a wide choice of substrates.



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

Gallus Labelfire 340

Digital flexibility

The Gallus Labelfire 340 is a system with an end-to-end logical operating concept that integrates digital printing with conventional printing and further processing. Labels are produced inline in a single production operation – from the unprinted roll to the matrix-stripped end product. A key benefit of the Gallus Labelfire 340 press system is its outstanding flexibility. The digital printing unit even enables cost-effective production of runs with variable data, versioning and short runs.

Inline processing in a single step

Tried-and-tested integrated Gallus ECS modules support the digital flexibility of the Gallus Labelfire 340 printing unit in delivering top print quality. The strengths of digital printing combined with those of the inline further processing operations of a conventional label printing press optimised for digital printing open up a wide variety of possibilities. For the first time, labels can be varnished, laminated, embellished with cold foil and die-cut in a single operation.

The conventional modules support the use of primer, spot colour, security or cold foil features, varnish or lamination without interrupting production, and regardless of the complexity of the label. Even before digital printing, the Gallus Labelfire 340 is able to combine special effects such as metallic or neon colours or flexo white and add spot colours.

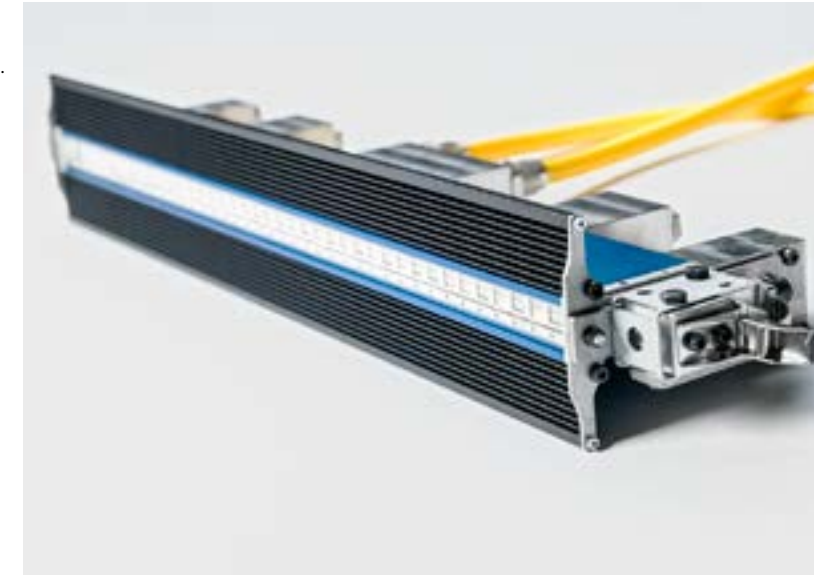
Maximum flexibility in substrates

The Gallus Labelfire 340 digital press system offers label printers an unprecedented variety of substrates. The UV inkjet system and a droplet size of just 2 pl in the inline finishing process generally removes the need for additional priming or varnishing.

Coated path rollers, pressure arms and a cooling roller mean the industrial inkjet system is suitable for processing temperature-sensitive and thin substrates. The eight-colour printing system also delivers high levels of flexibility when it comes to applications, with no change-over to additional digital colours being required, e.g. the use of digital white. Following prepress preparation, data for job changes is easily uploaded at the touch of a button via the integrated Gallus HMI touchscreen control panel that also controls the digital and conventional Gallus Labelfire 340 modules with the same operating logic.

Regardless of the material and die-cutting line length, most common substrates can be die-cut at constant speeds thanks to the semi-rotary die-cutting unit. Direct matrix removal ensures clean and constant print results, even for complex die-cutting contours of up to 50 m/min.

Pinning module with light trap for ensuring dots have sharp edges.



The fully integrated Gallus HMI is the central operating station that controls conventional and digital modules.



The cooling rollers of the main drying system enable printing on thin substrates.



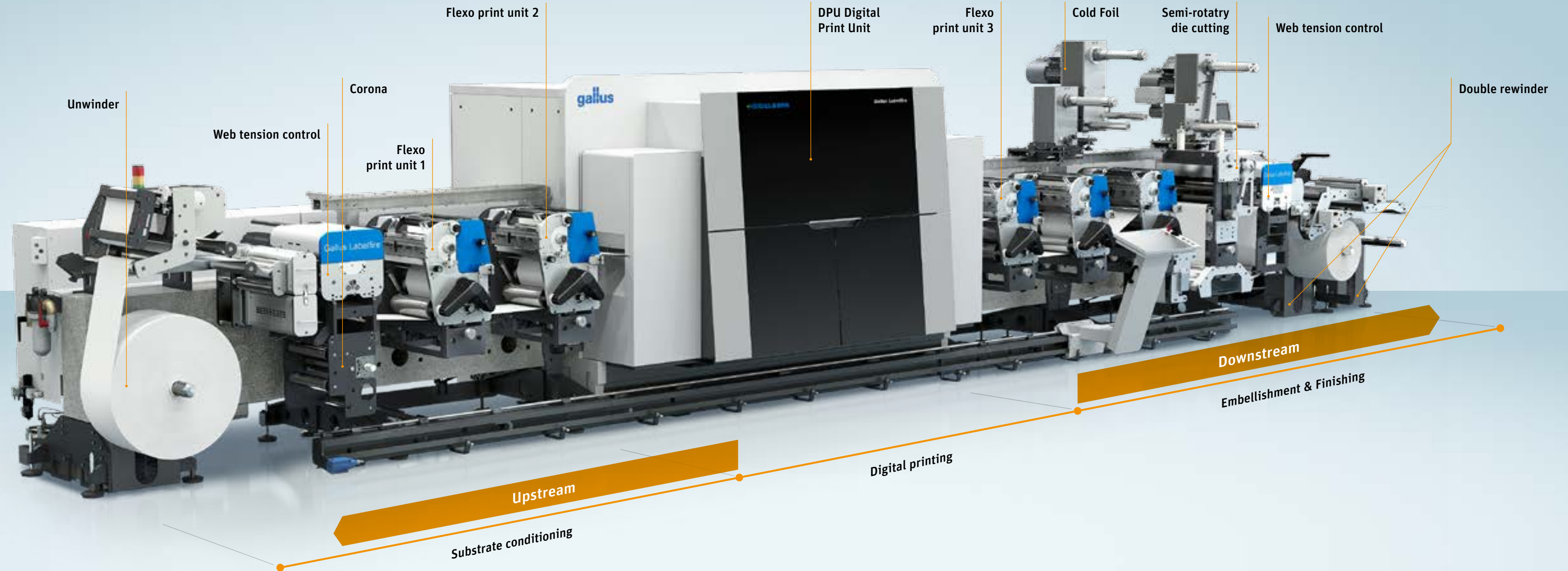
Optional slitter available in rotary blade or razor blade design.

The tried-and-tested modular system of the Gallus ECS 340 optimises the flexibility of the Gallus Labelfire 340.

Gallus Labelfire 340

Inline production

Thanks to its innovative integration concept, the Gallus Labelfire 340 combines digital printing with conventional inline finishing and further processing in one system. Labels are produced inline from the reel to the end product in a single pass – just as label printers require.



Gallus Labelfire 340

Exceptional productivity

The digital flexibility of the new Gallus Labelfire 340 enjoys unprecedented levels of integration thanks to conventional application modules.

Maximum integration for ultimate productivity

As an optimum industrial production system, the Gallus Labelfire 340 excels when it comes to short and medium runs that extend beyond the conventional 300 to 500 linear metres. A single operation is all that is required from substrate to the finished roll of labels, with no need for production or machine stops for completion or further processing.

The inkjet module with a print speed of up to 50 m/min forms the basis of the production technology. This speed is achieved regardless of the number of colours used and at maximum resolution. The eight-colour printing system extends the colour gamut without having to switch to additional Pantone and spot colours. Factors such as the option to produce multiple jobs in a single job container without stopping the press deliver further productivity boosts.

Print functions

The digital front end of the Gallus Labelfire 340 delivers a number of impressive practical functions including spot colour matching, the PDF Toolbox and Prepress Manager, to name but a few. All conventional print functions available meet the requirements for efficient production of short runs through optimised setup times, minimal waste and tool costs. In addition, the double rewinders enable rapid changeovers and crossed winding of small narrow rolls and also support minimal setup times.



Semi-rotary die-cutter with compensator.



The double rewriter enables interlaced winding of small reels and setup during production.

Gallus Labelfire 340

Dependable reliability

For more than 90 years, the motto at Gallus has been “success and security for the labelprinter”. Collaboration with Heidelberg, a partner with decades of experience in digital prepress and solid press engineering, created the perfect conditions for the development of a unique industrial inkjet production system in the form of the Gallus Labelfire 340.

The latest inkjet technology

The Gallus Labelfire 340 combines the superior, highly innovative UV drop-on-demand inkjet technology with tried-and-tested Gallus ECS 340 modules that form the base machine. In addition, the digital press system features inkjet printing heads with a service life of several years, even in two-shift operation. Automatic maintenance and cleaning cycles deliver high levels of system reliability and uptime. What’s more, the Gallus Labelfire 340 features proprietary processes developed by AVT and Heidelberg to assure outstanding digital printing quality during a print run.

The user-friendly Gallus Labelfire 340 HMI touch-screen control panel has been tried and tested in the label industry and enables label printers to master complex digital printing processes and the combination of conventional methods. The uniquely shaped inkjet printing head makes it possible to achieve seamless head stitching, resulting in smooth, streak-free print quality across the entire web. The Prinect front end from Heidelberg established among offset printers automates the prepress workflow and, in the Gallus Labelfire 340, delivers efficient data processing, digital offset printing quality and comprehensive colour management.



Inspection system for ensuring quality is consistent.



The “cockpit” shows the user all the important parameters at a glance.

Gallus Labelfire 340

Future-proofed profitability

The unique Gallus Labelfire 340 is designed with the future in mind. Reductions in tool costs as well as waste and setup times mean the industrial inkjet production system is raising the bar in terms of digital label printing profitability, even with short runs and versioned jobs.

Cost reduction

The Gallus Labelfire 340 digital press system combines the speed of flexographic printing with the efficiency of digital printing. Digital technology facilitates variable data processing and versioning in label printing, supporting the cost-effective production of short and medium runs over 500 metres. In addition, digital printing means job-specific fixed costs and costs for versioning and customisation can be reduced.

The Gallus Labelfire 340 conventional printing functions also deliver additional finishing options and inline further processing, e.g. varnishing, laminating and die-cutting. The semi-rotary die-cutting unit also delivers further benefits – printers can re-use existing die-cutting plates, meaning fewer new ones are required and thereby reducing procurement costs for these. The fair, consumption-dependent business model ensures that ink prices and service provision reflect the market and that customers benefit directly from the process optimisation achieved.



The Gallus Labelfire 340 combines the speed of flexographic printing with the efficiency of digital printing.

Technical specifications

Machine System Gallus Labelfire 340

Digital Printing Unit

Printing Method	UV – Piezo DoD – InkJet
Production Speed	50 linear m/min (regardless of number of colors)
Productivity	max. print output 1,020 m ² /h
Resolution	1,200 × 1,200 dpi native @2 pl droplet size perceived approx. 2,400 × 2,400 dpi
Number of Digital Color Units	8 (White + CMYK + OGV)
Print Width	max. 340 mm
Substrates	Monofoil, Paper and composite materials 50 - 350microns
Size	11,500 × 4,500 × 2,200 mm (Basic Configuration)
Variable Data Printing	iVDP (Industrial variable data processing such as bar-codes, data-matrix codes, alphanumeric text...), PDF/VT
Interfaces	to all widely used pre-press software solutions for label printers

Conventional Inline Production Platform

Reel Diameter	max. 40" (1,016 mm)
Number of conventional process platforms	5 + die-cutting
Repeat (conventional flexo unit)	254 – 508 mm (10" – 20")
Substrate Conditioning	web cleaner, corona, antistatic, full & spot flexo, primer (if necessary)
Finishing Capabilities	Varnish, coldfoil, laminate, die cutter, matrix rewinder, slitter, screen
Die Cut	Semi-rotary, format range: 6" – 20"

Supply Data

Connection power	70 kW (3P + PE)
Voltage	400 V / 50 Hz or 470 V / 60 Hz
Compressed Air	500 l/min; with 7.4 – 10 bar, oil- and waterfree
Exhaust	approx. 500 m ³ /h; Exhaust temperature max. 50°C / Ozon emission in operation approx. 0.8 mg/m ³
Conformity	CE, GS and UL in preparation

Remote access



All technical data represent approximate values. Gallus reserves the right to make mechanical and design modifications.

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