Targeting the 'granite' press

THE GALLUS ECS 340 PRESS launched at Labelexpo saw Gallus take a radical departure both in building materials – the first use of granite by a narrow web machine builder – and in targeting commodity labels. Andy Thomas reports

Labelexpo Europe 2009 saw the Gallus Group launch a press designed for the cost-effective manufacture of commodity labels. The Gallus ECS 340 press is based on a core of technical granite.

Building the press frame from granite enables an operator-friendly, cantilevered design of the print units, as well as reducing vibration and eliminating static. 'Thanks to its extremely high load-bearing capacity, technical granite is ideal for use in machine construction,' says Stefan Heiniger, Gallus Group vice-president research and development. 'The printing units are suspended on the granite structure, allowing the printer easy access.'

Gallus also claims that granite has a better CO2 emissions profile than steel, which may be of interest to printers under pressure to show a 'green' profile. The granite can be recycled once the press reaches the end of its life cycle.

Apart from the granite design, what sits at the heart of Gallus' marketing concept for the Gallus ECS 340 is commodity label production. Gallus defines 'commodity' labels as those with limited finishing requirements, meaning the press will be offered with cold foil, but without options for screen or hot foil units.

'The Gallus ECS 340 is available at a very competitive price,' explains Klaus Bachstein, CEO of the Gallus Group. 'This is due to the fact that the press has been tailored precisely to the needs of the target application segment and only includes essential functions, without compromising on quality or cost-efficiency.'

While deliberately limiting the flexibility of the press, Gallus has concentrated hard on maximizing press efficiency, since substrates can account for up to half the total cost of a commodity label.

The Gallus ECS 340 has a very short web path, measuring just over 11 meters for an 8-color machine, meaning the print must be dry over a distance of just 20cm. This is achieved using a newly designed, more energy efficient UV system combined with a water-cooled impression cylinder.

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For rapid design and color changes, the press makes use of both print cylinder sleeves and anilox sleeves, along with a chambered doctor blade system.

The press is fully servo driven, allowing register pre-setting. Indeed, JDF-driven integration of the press into factory-wide management information systems (MIS) - introduced at Labelexpo on the offset Gallus RCS press - looks to be a key focus for Gallus. The bi-directional system both sends set-up data to the press and retrieves production data for the MIS.

The Gallus ECS 340 is extremely quiet in operation. This is due both to the granite frame absorbing vibration, and to a new system of fully encapsulated and watercooled UV dryers developed by GEW which no longer require air extraction. The control cabinets are also water-cooled. A further neat touch - the press is fitted with a heat exchanger, fed from the water outfeed, which can be used to heat the factory.

ECS IN ACTION

Two early beta sites for the Gallus ECS 340 demonstrate where the press will likely be most effective.

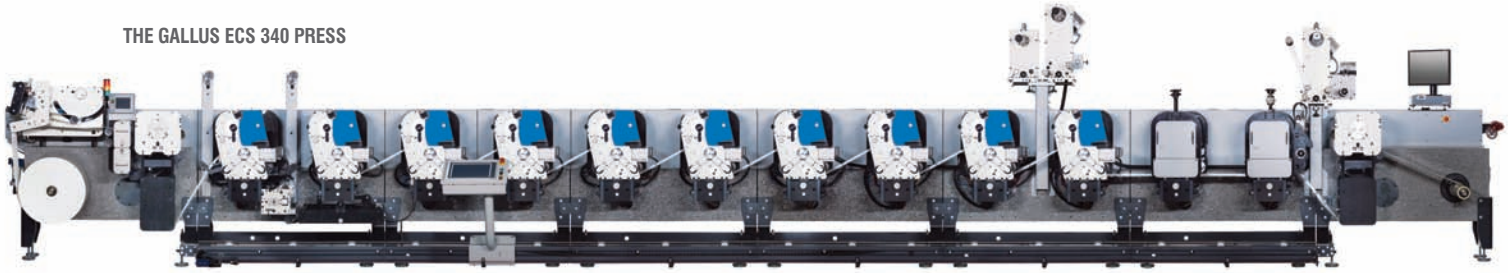
A Gallus ECS 340 has been in action at Barthel GmbH in Essen since mid-2009. Barthel specializes in the target 'commodity' food label sector, and the converter's experience with the machine has been positive. Production manager Herr Esser commented: 'It is remarkable just how quickly the press gets into register and, above all, stays there – without any register control whatsoever. Our paper waste has been cut dramatically.'

Dynamic print pressure adjustment means the print image is not altered when speeds are changed. 'We now trust the press' register accuracy to the extent that printers can focus on preparing the next job without having to continuously check the quality of the print results – even at top speeds,' adds Esser.

The beta installation at UK converter Olympus Labels presents a different case. Founded 15 years ago by former Jarvis Porter managers Steve Cartwright and Adrian Brown, Olympus operates primarily in the high-end personal care, household, wines and spirits sectors.

Around 18 months ago Olympus was looking for a new press and was approached by Gallus to beta test the Gallus ECS 340. Comments managing director Adrian Brown: 'We were looking for a fast changeover, fully servo-driven flexo press with sleeves –not common specifications at the time. We were all surprised to be told the press was made of granite – but like all label printers we are very adaptable! We were also

THE GALLUS ECS 340 PRESS



ECS print unit

ECS sleeve system

ECS chambered doctor system'

ECS print cylinder sleeve

ECS Anilox sleeve. For a video demonstration of the press in action, visit www.labelsandlabeling.com

LABELtv

"What sits at the heart of Gallus, marketing concept for the Gallus ECS 340 is commodity label production"

surprised the press did not have screen or hot foil units.'

The press was installed at the end of last year and was printing commercial labels in March. 'We felt then that the press needed further development,' says Adrian Brown. 'Gallus did listen, and rebuilt the printing units from steel and not alloy. The second generation heads are much more stable and the registration of the modified machine has surprised everyone, to the extent that the press does not need a register control system.' Brown believes that some fine tuning is still needed, 'but you can certainly see the potential of the press.'

Brown also likes the short web path and compact footprint of the ECS: 'I think the electrical cabinets could be even smaller and I understand the new GEW E-Brick power units will be half the current size,' he adds.

The press has converted a wide range of substrates including papers, PEs and clear-on-clear OPP. Olympus has also trialed 30 micron unsupported OPP at Gallus' Frankfurt production center. 'This job was spliced directly from a paper reel and the unsupported film went onto the press without any need for register control,' says Adrian Brown.

The press has been running 6-9 color jobs at speeds around 70-80 m/min. 'If you ran faster you would certainly need 100 percent inspection,' says Brown.