

The new age of printing presses

Offering quality and efficient solutions that are tailored to label printers' needs, **Codimag** is the world leader in intermittent waterless offset label printing. Its new Aniflo technology combines offset quality, flexo simplicity and digital flexibility to provide its clients with state-of-the-art label-printing presses. *Converting Today* speaks with Pierre Panel, export sales engineer at the company, to learn more.

What is Codimag, and how has it developed as a business?

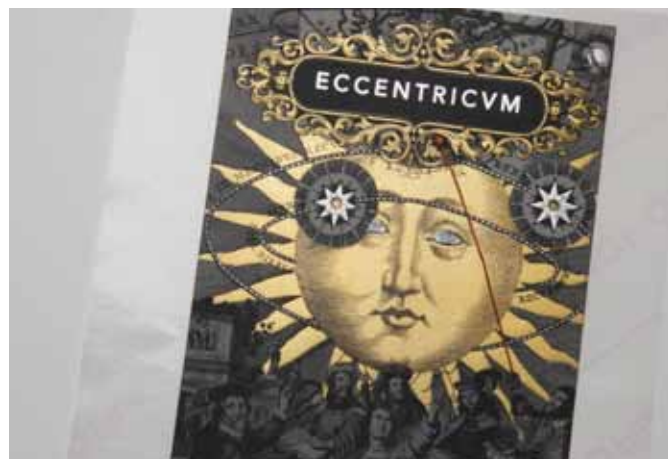
Pierre Panel: Codimag, based in Bondoufle, France, is the world's leading designer and manufacturer of intermittent waterless offset self-adhesive label-printing presses. Established in 1977, the company employs 34 people at its 1,900m² facility and has installed approximately 400 presses globally. Since 2007, it has specialised in presses based on its Aniflo technology, combining waterless offset inks and plates with a simple flexo-ink supply system. It offers dedicated and hybrid solutions that are tailored to label printers' needs, with a host of high-value in-line finishing options, making its presses productive and cost-effective for many different markets, including food, beverage, personal care and household chemicals. The company has a network of distributors on all five continents.

What is Aniflo technology?

An Aniflo unit uses viscous, paste-like waterless offset inks and requires only four cylinders in the ink train: the anilox roll delivers a constant film of ink to a form-rubber roller, which in turn delivers ink to the plate and onto the blanket. Each cylinder has the same diameter, eliminating the chance of ghosting. This ensures inking consistency across and along the web: an exact, controllable amount of ink is delivered to the plate and substrate across the web, so exact colour is achieved on every label in the run.

In the Aniflo printing unit, ink is transferred to the anilox using a dual-chamber doctor blade system. The anilox cell structure is specially adapted for the highly viscous nature of the ink, and fine-precision engraving enables high resolutions to match the quality of offset.

A proprietary heat control system allows the operator to vary the temperature of the anilox roll and therefore regulate volume, viscosity and colour density without the need for ink keys.



Converters want to create shelf appeal through eye-catching and unique designs.

What is intermittent printing?

An Aniflo press is an intermittent technology, which prints by stopping the web during each printing cycle in a stop-go action. The printing cylinders rotate at a constant speed. When the image is applied, the web runs at the same speed as the printing cylinders.

Once the image is applied, the web decelerates, reverses and accelerates again, so the following image can be applied. Thus, the same cylinders can be used for many repeat sizes on an Aniflo press – between 50mm and, on the Viva 420 model, 432mm.

What are the advantages of Aniflo technology?

Aniflo intermittent printing technology achieves the high-definition quality of waterless offset with the simplicity and consistency of flexo on all commonly used label substrates. With its low operational costs, fast set-up times, speeds up to 75m a minute and the ability to incorporate many finishing processes in-line, it is proving competitive for high-end applications and short to medium run label-printing situations, from 250–8,000LM, and sometimes beyond that.

Colour matching is simple and faultless, thanks to Aniflo's accompanying Extended Gamut Printing colour management software. With a fixed palette of four to seven colours – from CMYK, plus orange, green and violet or blue – up to 90% of Pantone colours can be achieved. Using process colours, there is no need to prepare or store spot colours, complete ink changeovers between jobs or manage press-return inks.

The use of waterless offset plates makes it economical for more businesses to bring the pre-press workflow completely in-house and go from a PDF to a printed result at normal production speeds in under 30 minutes.

There are few moving parts and a high degree of automation, so the process requires a relatively low skills investment, and manual intervention during the printing run is restricted to temperature control. The only part to exchange is the plate, even when changing format size. Its short inking path means colour adjustments can be made rapidly with low material waste, especially in the start-up phase.

Aniflo offers the flexibility of digital printing with the familiar conventional press-cost structure, but without relatively high ink costs, click charges, maintenance contracts or the need for a primer.

What are the latest trends in printing presses for label converters?

The desire for shorter production runs and lead times in a supply chain that demands higher levels of service means label converters are seeking ways to drive waste from their processes

as much as possible. We see a greater need for automation – to optimise uptime and minimise human input.

Converters seek to create shelf impact through a striking and unique design that grabs the consumer's attention and conveys brand quality. So a press manufacturer must offer optional value-added finishing options in-line.

To cut time to market and ensure quality consistency, the market seeks workflow integration. Connectivity is becoming crucial.

How have you addressed these trends with the latest product launches?

Aniflo combines precise register and colour matching, extended range, fast pre-press times and printing speeds, and we are constantly looking for new areas of improvement to respond to market needs:

- **Automation:** Aniflo technology has servo drives with independent unit controls, communicating through a central repository, as well as automated register controls. Human-machine interfaces feature larger screens with intuitive design, guiding the operator through the processes, enabling printing in minimal time. New software features allow connectivity with other elements in the IT environment such as the pre-press and ERP systems.
- **Low waste:** Aniflo presses offer the shortest web paths in the industry. Being straight, they also offer low power consumption thanks to optional LED UV curing and temperature regulation.
- **Modularity:** the latest VIVA Aniflo presses offer the option to include numerous added-value finishing processes in-line, like rotary and flat-bed hot foil stamping and flat-bed embossing, as well as semi-rotary screen printing and inkjet printing. This makes it possible for label converters to configure the press according to their markets and add shelf-appeal with metallic, tactile and varnish effects, in the same pass.

How important are partnerships to Codimag?

It is essential to stress the importance of collaboration with other system-supplier partners in order to optimise the workflow. Our partnerships have brought innovations that improve press performance and print quality in many ways.

Esko's Equinox colour software plays a key role in assuring a high colour range and colour accuracy on Aniflo VIVA presses. Our collaboration with IST Metz has resulted in the development of long-life, emission-free, low-energy UV LED curing systems that are compatible with waterless offset inks and can be integrated with the VIVA Aniflo presses. Furthermore, we have partnered with Technotrans to optimise temperature regulation, and machine control specialists B&R to enhance automation on our presses.

Where do you see Codimag's VIVA press technology having most impact in label converting?

Codimag VIVA Aniflo printing lines are relevant for many consumer label-printing applications, particularly in the short and medium-run markets. Viva 340 Evolution is a dedicated Aniflo press, while Viva 340 Combination offers the option to include



Label converters must manage the demand for increasingly shorter production runs.

added-value finishing, configured to the user's needs. Aniflo technology is available in 340.0 or 420.0mm widths. The wider option, with 482.9mm cylinders, provides the solution for highest productivity, with speeds of up to 75m a minute and 1,900m² an hour. The decision whether to include finishing options is typically influenced by markets served, other presses in operation and available space.

Is sustainability a key issue for you and, if so, what is being done to support your and customers' sustainable objectives?

A resounding 'yes' on both counts; with Aniflo, we have developed a workflow where waste is removed at every opportunity, and this means our customers are excellently placed to meet sustainability objectives, relating to material waste, water use and emissions. In addition, the latest chemistry-free waterless offset plates, UV LED curing systems and chilling systems reduce emissions and power consumption further. We continuously work with co-supplier partners to seek opportunities for improvement.

What is your proudest moment of 2017?

In many ways, 2017 has been a break-through year for Aniflo, but perhaps the 'moment of truth' was Labelexpo. We staged live demonstrations, during which customers could see their chosen files being processed and printed within 30 minutes. This proved the speed and quality of Aniflo first-hand to converters from all sectors of the industry. Out of over 30 Aniflo live demonstrations requested by Labelexpo visitors, the vast proportion were for non-food applications. This shows that the benefits of this technology are being understood. The momentum is growing and we have received many enquiries as a result.

What does the future hold for Codimag and Aniflo technology?

Average printing run lengths continue to decline as the retail goods supply chains seek more product diversity and flexible delivery models. This is why label printers are seeing how Aniflo technology, with its combination of HD-quality, low total-cost ownership and speed, can deliver significant value. ■

Further information

Codimag
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