

Folding Carton

industry



insight graphic systems

THE DIGITAL FUTURE FOR HOT FOIL STAMPING



Reduced off-press set-up time
is the solution to improved
profitability says Michael Brunton

HOT FOILING MARGINS ARE UNDER PRESSURE

The top end luxury carton market, incorporating hot and cold foil stamping and embossing, has long been known for its above average profit margins — but this specialist market sector is increasingly coming under margin pressure — whether that be in the US, Europe or Asia.

Like all major carton end-user sectors, run lengths over the last five years, even in the luxury carton sector, are becoming ever shorter — but the long press set-up time for each hot foil job remains constant, continually squeezing profit margins.

Another market pressure for those cartonmakers specialising in hot foiling is the growing interest from traditional converters looking to capitalise on the luxury carton sector by investing in foiling inline on their litho presses. Needing just a single make-ready, and a single crew, in-line foiling also benefits from negligible tooling costs compared to hot-foiling, virtually assured foil-to-print registration, high running speeds, and also offers the possibility of overprinting the foil to produce a host of colours and effects. However, set against these advantages are the issues which have restricted its uptake. These include the difficulty of effectively curing UV adhesive through darker foils, a lack of the high brilliance that hot foil stamping offers and difficulty in applying registered holograms such as those used for brand protection.

Well aware of the margin pressures facing the luxury carton producers, the leading hot foil press manufacturers were quick to introduce new models to improve machine uptime, productivity and output quality. Features such as longer dwell time, machines running at lower pressures and

temperatures, larger sheet sizes, improved registration, faster foil changes, reduced foil wastage and higher production speeds are all much appreciated — but do nothing to address the issue of reducing job set-up.

Job set-up

A few years ago, a typical 20,000 sheet job (8 dies) run at 2500sph had a press set-up time of 2½ hours with a press run lasting 8 hours. Total job time was 10½ hours — the set-up time was manageable. Today, a more typical job might be 5,000 sheets (with 12 dies). Set-up time is 3½ hours and machine run time at 2500sph is 2 hours — the long set-up time is clearly an issue.

Some of the most progressive luxury hot foil carton producers tend to be based in Germany, France, Switzerland and America. More than a few of them have turned to UK based Insight Graphic Systems to dramatically reduce set-up times while improving quality and their subsequent productivity.

Founded in 1995, Insight Graphic Systems markets the FoilConnect™ system that incorporates various elements — including Digital Assistant, Die Co-Ordinator, Foil Co-Ordinator and Foil Tracker. Proven in the field over many years, typical benefits of the FoilConnect system are reduced set-ups (50-60%), increased run speed of the hot foil stamper (+10%), reduced foil per job (-5-15%) and reduced time for estimates (-5-10 minutes per job). With such impressive cost benefits, it's no surprise to learn that Insight Graphic Systems are installing two of their bigger Die Co-Ordinators (DC1450 to fit a honeycomb suitable for a Bobst 142) in America and France in the coming months and a DC1060 is scheduled for installation in France in November — taking the number of installations in France up to eight, all in the luxury packaging sector.

Technical Details

Digital workflow for printing has been well established for many years. FoilConnect forms the bridge from customer origination right through to the hot foil stamping press

Die Co-Ordinator



— linking all the elements required to optimise the production process. Most importantly, FoilConnect has been designed to merge with existing workflows to optimise hot foil stamping performance using each cartonmaker's existing production resources.

Digital Assistant enables you to make PDFs already created by the customer's design team, or imposed sheet layouts created by your own origination department and quickly and easily prepare data (in 2-3 minutes) for Die Co-Ordinator and Foil Co-Ordinator. It's easy to use, accurate and repeatable, enables contour mapping, has nine different pre-press interfaces and offers a scientific approach to foil measurement.

Die Co-Ordinator is considered by many to be the industry standard for pre make ready die registration. By accurately registering hot stamping and embossing dies off-press, Die Co-Ordinator has been proven to reduce press set-up by up to 50%. Current Die Co-Ordinator users in the UK, Germany, France and Spain have together saved more than 2,000 production hours per year. Features of the Die Co-Ordinator include:

- Point & Click means that a job can be programmed in under 2 minutes
- Self-datuming servo motor driven linear slides mean that Die Co-Ordinator

recalibrates itself every job, eliminating mechanical variation

- Repeatable, consistent movements accurate to 0.005mm combined with image magnification to 0.03mm per pixel; automatic compensation for board stretch and heat expansion; fingerprinting each honeycomb to each press enables you to achieve the highest level of die registration possible
- Job database store can hold >100,000 jobs and allows you to recall a re-order in seconds
- Robust and rugged construction ensures that Die Co-Ordinator is designed to match and exceed the lifetime of your presses
- Adjustable guides ensures that Die Co-Ordinator can work with most hot foil stampers (Gietz, Bobst, Iijima, Brausse, SBL, MK and Saroglia).

Foil Co-Ordinator is a comprehensive and sophisticated foil management system that calculates every possible foil advance for the most complicated jobs in seconds and always presents the optimal solution. It links to estimating, production, stock, purchasing, foil supplier and direct to the press itself. Obvious benefits include improved press set-up time and reduced administration costs. It extends digital workflow to any foil stamping press, sending information for the foil reel positions, foil

PROTECTING MARGINS



TEST FACILITIES

Insight Graphic Systems have a network of highly respected sales agents in Germany, Austria, Switzerland, UK, France, Spain, Italy and the USA.

In conjunction with their sales partners Gietz, there is a test facility in Switzerland at Gossau near Zurich where customers can bring their own sheets and dies of existing work. They will set up the jobs in real time and stamp the sheets on state-of-the-art presses (both full-size and half-sheet) while you are watching. This enables clients to evaluate how the Die Co-ordinator and other FoilConnect modules could benefit and optimise their own workflow.

Des O'Keefe, the Managing Director of Insight Graphic Systems and designer of the Die Co-ordinator and Foil Co-ordinator, will be presenting the FoilConnect modules with process improvement techniques for hot foil stamping specific to carton manufacture in greater depth at the ECMA annual Congress in Dubrovnik (September 18-20th).

advance programmes and feeder/delivery settings with one single mouse click — eliminating manual error, duplication of effort and set-up time.

Technical Assistant allows you to communicate directly with advisers to make changes or provide assistance directly on your workstation in real time, addressing specific issues to your satisfaction.

ERP Highway provides you with a structured, automated method of transferring data within the FoilConnect modules and also externally to your existing ERP systems for purchasing and stock, including your foil supplier's manufacturing programmes.

FoilStock itemises and allocates every piece of foil in your factory. Whenever a job is estimated it automatically checks existing and ordered foil allowing you to use existing material rather than having to guesstimate and order more foil than you actually need.

FoilTracker records the history of every piece of foil that you stamp, from the original estimate enquiry, through ordering, receipt of stock, warehousing and on to press. Every event is date and time stamped along with the identity of the person handling the foil. This provides security and quality control information both for your internal records and for your customer.

For years, hot foil stamping has been excluded from digital workflows and can be a major bottleneck in production. With one or more of the eight modules that makes up the FoilConnect system you can now reduce your press production time, optimise your press running speed, minimise your estimating overhead, save foil on every job and reduce your inventory. At a later date you can add other FoilConnect modules (as required) to complete a totally digital hot foil workflow that will protect your hot foil stamping margins for years to come. ■

FoilConnect...

MAXIMISE YOUR PRODUCTIVITY WITH THESE *FoilConnect* ELEMENTS



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Die Co-ordinator accurately registers hot stamping and embossing dies off-press and has been proven to reduce press set-up by up to 50%.



Foil Co-ordinator is a foil management system that calculates every possible foil advance for the most complicated jobs in seconds and always presents the optimal solution. This is a scientific approach to foil measurement.



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