K600i digital foiling

A unique solution for brand protection, authenticity and product embellishment

Domino. Do more.
Digital cold foiling

This innovative digital solution from Domino enables conventional metallic foils to be digitally applied to label and packaging substrates including features such as variable text, security marks and graphics. This unique process combines the benefits of variable content digital printing with metallic foils typically used in the analogue ‘cold foiling’ process. This combination provides an enhanced security feature representing a unique added value capability for your customers.

At speeds up to 75m/min, the Domino K600i cold foiling system delivers real productivity. Combine this with virtually no make ready, no printing plates or dies, along with low maintenance and you have a highly efficient system to help you increase sales and profitability.

Domino brings the cold foiling process into the digital age!

Applications

Security

Digital cold foiling is used to enhance brand protection, provide traceability and represents an enhanced anti-counterfeiting measure. By combining the ‘printing’ of variable content onto customer specific customised holographic foils, it provides increased complexity and a heightened level of security that is difficult to replicate.

Decorative embellishment

Especially for short run work, digital cold foiling is highly efficient method to apply decorative foils to pharmaceutical, personal care, cosmetics & food beverage labels and packaging.
The process

The digital foiling process

The Domino K600i digital printer lays down the image/pattern for the foil on the substrate using a UV curable adhesive.

The foil is laminated onto the substrate and passed under a UV lamp, curing the foil to the substrate.

Foil that does not have any adhesive under it is delaminated from the media, revealing the desired foiled image/pattern cured on the substrate.

Flexibility and choice

Curing the adhesive using UV technology allows a wide range of foils to be applied to a range of substrates.

This solution also offers the flexibility to run multiple foil types/jobs across the web width simultaneously.

Scalable modular solution

The K600i is a modular and scalable solution offering variable digital cold-foiling from 108mm (4.25”) up to 782mm (30.81”) wide.

Using the Domino i-Tech StitchLink technology, seamless images can be applied across the full web width.

Easy to integrate

The Domino K600i’s compact and modular platform can be integrated onto a web-fed press or finishing line, or it can be supplied as a standalone roll-to-roll solution.

In the example illustrated, the K600i is shown integrated with an ABG web system, configured with unwinder, dedicated base for the K600i, foil lamination module, UV curing, inspection and rewinder.

Accurate and reliable web control is required to achieve the highest quality results.
A quick tour of the K600i digital foiling module

Key to illustration

1. Media Unwinder
2. Domino K600i printer
3. i-Tech automated CleanCap cleaning and capping station
4. Digital Foiling Module
5. UV Curing System
6. Digital foiled output on rewinder
7. Editor GT Industry Standard Controller
8. Holographic digital foil example
Why use digital foiling

Advantages of digital foiling

Folios are extensively used within the premium goods sectors, and for these high value goods compared to printed foil styled inks, folios have a number of advantages:

• Brighter and more reflective
• Higher opacity, density and uniformity of colour
• Shade consistency, independent of print process
• Highly resistant to handling and abrasion
• No need to overcoat, laminate or varnish
• Flexible across large solid areas and extremely fine detail
• Extensive range of shades, holographs and finishes
• Combined with customised holograms provide unique security solutions
Technical Specification:

**Operational Capability**
- Maximum line speed: 37.5 – 75m/min
- Image width: 108mm (4.25") to 782mm (30.81")
- Nominal media to print head distance: 1.0mm (0.04")
- Media: Coated paper and films

**Adhesive System**
- Adhesive Supply: 10 litres (ink dependent)
- Adhesive Type: UV Curable

**Foil Types and Substrates**
- Suitable Substrates: Papers: Gloss, coated, semi-coated and some uncoated (no rough or highly absorbent substrates). Synthetics: PE, PP and PET
- Foil Types: Wide range of decorative colours in flat, gloss and matt shades. Holographic stock ‘wallpaper’ patterns and high security customised patterns, originated upon request including registered designs.

**Print Capability**
- Text: Fixed text, variable text
- Other Interfaces: Please contact us for more details

**Key Dimensions**
- Conduit length - main enclosure to print head: 4m (13’)
- Conduit length - main enclosure to flush bottle: 4m (13’)
- 333m (13") head print bar: 1330w x 354.4d x 705.4h mm (height dimension excludes conduit)
- 10L ink supply box: 108 (4.25") - 558mm (21.96") 640w x 440.4d x 425h mm (dimensions excluding conduit radius)
- Flush holder: 234w x 234d x 360h mm (dimensions excluding air regulator and conduit radius)

**Services**
- Electrical: K600i 110-240v AC50-60Hz 10A (auto ranging)
- Compressed Air: Operation dependent, normally 380-420v three phase drop 6-8 bar clean dry supply

**Environment**
- Optimum temperature range: 20-30°C (68-86°F)
- Optimum humidity range: 40-60%

**Ancillary Equipment**
- Print head guarding, UV dryer, Web cleaner, Web guide, Anti-static bars, Reel to reel system, Arched roller section, Corona treatment.

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We reserve the right to change the design or specification of our products without notice. Some of the information contained in this brochure is general in nature and customers should check that it is applicable to their individual circumstances.