

CMYK digital printing on beverage closures



Hapa's "redcube plus" lies at the heart of the IMDvista Closure Digital print (CLDP) solution.

Hapa's latest UV DOD printing module "redcube plus" lies at the heart of the IMDvista Closure Digital Print (CLDP) solution, a premiere for the beverage-closures market. It delivers full-colour printing of graphics and text in a CMYK plus white application, at a remarkable speed of up to 1,500 pieces per minute.

Direct digital printing onto closures is a novel application. It offers multi-colour and colour-shading artwork opportunities as well as advantages over tampon and analogue printing methods, by increasing production flexibility, reducing changeover times substantially, and accelerating lead times. Producers can go straight from design approval to print, cutting out

complex, costly, and time-consuming processes.

Equipped with the "redcube plus" digital printing module, the new CLDP system from IMDvista – distribution partner of Hapa – produces beverage closures printed in up to seven colours, spot or CMYK printing plus white, with a print resolution of 720 dpi.

"redcube plus" at the heart of CLDP system

The complete IMDvista beverage-closure printing solution follows a waterfall sorter with bunker, flexible guide channels, and a spacing unit. The combined IMDvista-Hapa printing solution is housed in a separate cabinet. It begins with a pre-treatment station that ensures robust print results. At its heart is the UV DOD piezo inkjet "redcube plus" printing module. Scalable and flexible, it has an upgrade path from single colour to CMYK plus white. The system uses UV inks produced by Hapa Ink, which are solvent-free and Nestlé positive-list compliant. All text and graphics are printed in a single pass at a remarkable speed of up to 1,500 pieces per minute, depending on closure size. Immediately following printing, the closures are LED-cured. After the ink is cured, the printed closures pass through an integrated IMDvista print inspection system.

An automatic reject station blows out any "bad print" pieces from the line. Rounding up the printing cabinet is an automatic sampling station allowing the operator to pull out samples at any time. All data transfer for the system is fully digital. A single HMI operates printing and inspection, simplifying digital product changes. Print-job management and a print-history are included functions.

Convenient handling

Designed to deliver accurate, reliable and high-quality print results, the "redcube plus" is easy for existing line



„redcube plus“

The "redcube plus" is a scalable UV DOD inline printing module designed to deliver accurate and reliable print of up to 720 dpi onto blank or pre-printed substrates – on demand and just in time. An upgrade path from single to multi-colour spot or CMYK printing is easy. UV pinning is available to fulfil white and/or colour-on-colour printing.



personnel to operate. Cleaning of the print heads and ink flushing are automated to keep downtimes to a minimum, and the ink tanks are easy to reach and are refillable during printing. The printing module adjusts automatically to the height of the beverage closures. Hapa's "redcube plus" delivers direct digital print on-demand and in highest print quality.

New opportunities

The flexibility of direct digital printing on beverage closures offers companies new opportunities to increase brand awareness. Digital print in general is market-proven to realise efficient and effective communication. It can be applied to other applications such as rigid plastic boxes, metallic crown corks, or any other flat-surfaced component, tasks the "redcube plus" is able to easily fulfill.

Products can be individualised as late as possible in the production process, opening chances for personalisation of products, and new or seasonal launches and campaigns.

Swiss partnership

Behind the CLDP line's development stands an exciting partnership between two Swiss market leaders IMD Ltd., producers of inspection and handling systems, and Hapa. The partners, located within close proximity of each other, offer customers the advantage of being able to sit with representatives of each company to tailor solutions toward capturing new marketing parameters.

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