

It's not just about the can

Exploring the benefits of eco-friendly direct-to-shape printing and aluminium aerosol containers

Aluminum is 100% and indefinitely recyclable and although traditional decoration of aluminum aerosol containers has remained somewhat stagnant, manufacturing processes have come a long way in the last decade to be more eco-friendly, using higher energy efficiency, less waste, and recycled materials. This is great news (and smart business) since brand owners actively seek sustainable packaging solutions for their products to compete effectively in the market.

While sustainability in the form of materials, process, waste management and product distribution was once an option, it is now a priority due to the growing consciousness among converters, brand owners and consumers about the environmental impact of the products they make and use.

The alternative to traditional industrial decoration of aluminum aerosol containers is digital direct-to-shape (DTS), which achieves substantial sustainability benefits across every step of production and the entire supply chain.

Velox, whose mass production digital decoration system offers a replacement for

analog DTS printing, strives to consistently exceed sustainability goals for its global customers. The company's solution guides 250 containers per minute through the machine for high quality branded design and printing – an extremely green process.

How does it work?

By eliminating the need for plates, screens, blankets, chemicals, and spot inks, the Velox IDS250 reduces substrate and chemical waste. By increasing the capacity and efficiency of existing production, DTS digital printing reduces energy consumption per unit, storage, chemical handling units, and downtime.

Enabling on-demand production reduces inventory and eliminates overproduction and, using DTS digital printing also helps to reduce transportation and logistical stock requirements by simplifying the supply chain. This in turn improves planning, shortens time-to-market, and drastically reduces final goods waste.

Velox's industrial digital technology is unique, combining the benefits of offset, silk and flexo in one solution. This dedicated technology for DTS applications

removes the need for varnishing, coatings, associated ovens and drying systems, embellishment units and other steps in the production process. Digital gloss, matte and tactile embossing are part of the system – every colour and embellishment is applied simultaneously. Fewer machines on the floor saves space, overhead, and reduces resource consumption.

Because designs are printed directly on each container, there are no labels or sleeves that are then applied to the surface, saving on label substrates, adhesives and logistics. Even if only 15% of labels are converted to direct digital decoration, the savings of related materials are up to many tons of plastic annually. The technology also makes it easy to do micro-segmentation by language or country, reducing the need for more materials, contaminants, and inventory, and further reducing environmental footprint.

The Velox DTS-Inkjet technology is comprised of a dedicated system architecture and uniquely formulated inks that offer high-quality printing at the highest production speed and low total cost-of-ownership on any container material or coating.

Sustainability is achieved across every aspect of the workflow: in the decoration process, the production line, manufacturing site, and end-to-end product lifecycle. With up to 14 simultaneous colours (covering over 95% of the Pantone Plus colour space) and embellishments, including photorealistic images and tactile embossing, 360-degree decoration with no seam, gap, or overlap, and printing on the aerosol can shoulder, Velox makes it possible to meet creative and business goals while reducing a products' environmental footprint. What is even more exciting is knowing that DTS digital decoration technology applicable for mass production can dramatically boost the environmental impact already seen in small-quantity production. That means the impact in high-volume production is even greater.



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