







# Velox IDS-PT™ Series

Mass production direct-to-shape digital decoration for tubes



-  Unprecedented Decoration **Quality**
-  Full Operational **Flexibility**
-  Low **Total Cost of Ownership**
-  Built-In **Sustainability**



# Velox IDS-PT™ Series

## Direct-to-shape digital decoration solutions for mass production

The Velox IDS-PT series is an advanced digital decoration solution for the mass production of plastic and laminated tubes. It is the world's only industrial direct-to-shape digital decorator that fully addresses the market needs for high-quality printing, flexible run lengths, low total cost of ownership and enhanced sustainability. With the Velox IDS-PT series, converters of plastic and laminated tubes can immediately gain a new competitive edge and expand their business opportunities.

## Benefits

### Unprecedented Decoration Quality

#### Unparalleled decoration features

- Photorealistic image quality
- Ultra-wide color gamut
- Accurate color matching
- Smooth gradients and halftones
- Sharp texts and lines

#### Unique enhancements

- Highly opaque white for selective or full coverage
- Selective digital embellishments
- Seamless 360° decoration
- Printing on the cap and seam line

#### High-end appearance

- High image quality on any color or type of substrate
- Superb printing properties – Including adhesion, scratch and heat resistance
- High consistency and repeatability



## Full Operational Flexibility

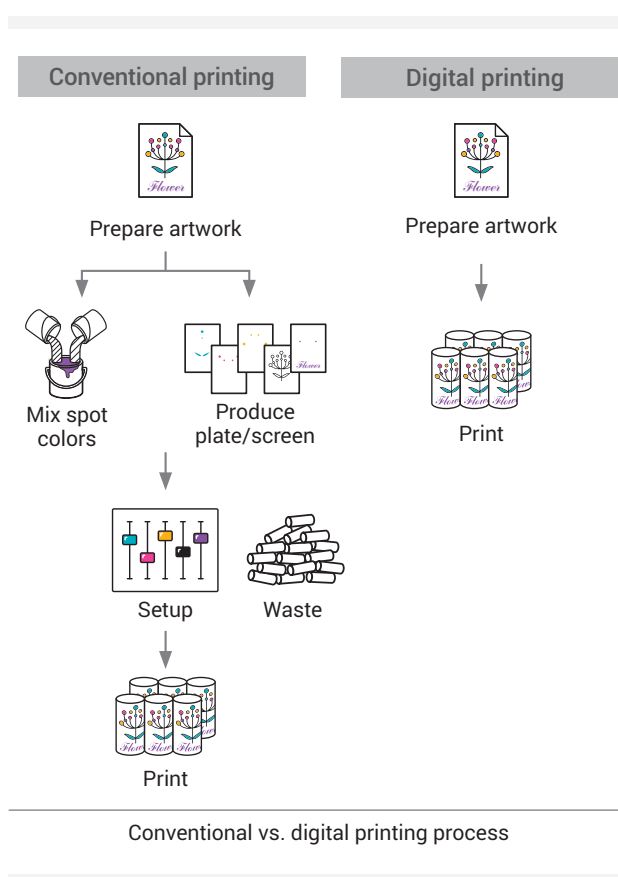
- Near-zero setup time
- Ultra-high decoration speed
- Any run length – No restrictions on minimum order quantity (MOQ)
- Process simplification – Eliminates pre-treatment, base coating, decorative and protective over-varnishing
- Quick changeover between jobs
- Automated processes – No need for print expertise
- Full repeatability

## Low Total Cost of Ownership (TCO)

- Zero make-ready costs – Eliminates plate preparation costs, calibration waste and operator setup time
- Capacity increase – Improves efficiency with high print speed and virtually zero setup time
- 24/7 productivity – Smooth, non-stop operation with inherent high-reliability
- Process cost reduction – Eliminates most pre-and post-treatment
- Low cost-per-copy – Highly efficient ink coverage
- Decoration on demand – Eliminates overproduction and inventory costs

## Built-in Sustainability

- Reduced waste – No plate preparation, color mixing or calibration waste
- Lower energy consumption – Fewer process steps and less decoration equipment are required
- Plastic savings - Direct decoration eliminates labels and sleeves
- Reduces overproduction, shipping and inventory



## Unprecedented Decoration Quality

The Velox IDS-PT series provides superior digital decoration capabilities with photorealistic image quality, smooth gradients, halftones and sharp text. Print resolution of up to 1200 dpi and up to 14 process colors always available on the system ensure an extremely wide color gamut and accurate color matching with over 95% of the Pantone® Plus color book. Selective application of highly opaque white makes it possible to print on any container base color and to achieve raised texture and haptic effects. With digital matte and gloss, seamless 360° decoration and printing on the cap, the Velox IDS series opens up a wealth of design possibilities on almost any material and coating.





## Full Operational Flexibility

Velox's advanced digital decoration systems deliver mass production speed of up to 250 cpm (containers per minute) and operational flexibility that is attainable only with digital technology. The unparalleled speed and near-zero setup time between jobs allow on-demand printing, short time to market and easy transition between jobs, with no restrictions on run length.

Velox's direct-to-shape digital decoration greatly simplifies the printing process by eliminating the need for pre-treatment, base coating and protective over-varnishing. Diameter changeover time is short, maximizing system utilization, while supporting multiple tube sizes and frequent job changes.

Designed for utmost efficiency, the Velox solution includes automated processes like prepress and job preparation software (with support for web2print connectivity), calibration, on-the-fly inspection and easy operation that requires no print expertise. High print quality and consistency are automatically maintained throughout each job and across repeated jobs, with no compromise on speed.

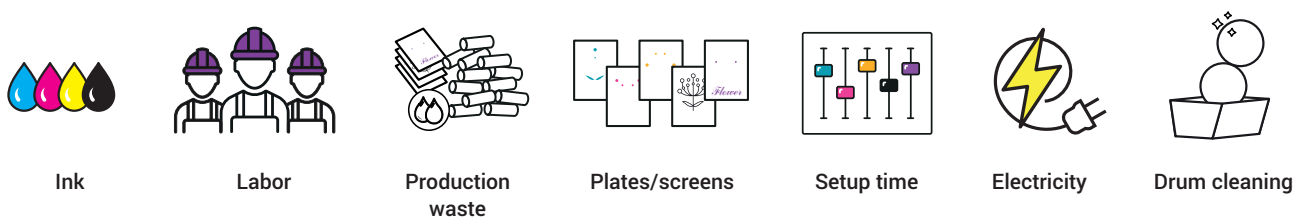
## Low Total Cost of Ownership (TCO)

With Velox's digital decoration technology, plate preparation, calibration waste and setup time are virtually eliminated. Overall production capacity is increased thanks to the high system speed and near-zero setup time – making the Velox IDS-PT series efficient for everything from short to long production runs.

High reliability allows 24/7 production and maximum machine uptime, adding to the system's outstanding productivity. Process steps like ink mixing and pre- and post-treatment are no longer needed, saving time and costs. Further enhancing cost savings, highly efficient ink coverage reduces ink consumption.

Moving toward decoration on demand, overproduction is eliminated, and inventory waste and costs are reduced. In delivering all these time, material and labor savings, the Velox IDS-PT series significantly lowers OPEX and ensures fast return on investment.

### Conventional printing costs



### Velox digital printing costs



## Built-in Sustainability

Velox's direct-to-shape digital decoration introduces an eco-friendly solution for today's demanding environmental requirements, using a significantly more sustainable process than analog decoration.

By eliminating plate preparation, spot color mixing, chemicals and calibration setup, it dramatically cuts waste. With the increase in capacity that the Velox IDS-PT series enables and the reduction in process steps (such as varnishing and coating) less equipment is needed throughout the decoration process, reducing energy consumption.

Replacing labels and sleeves with direct decoration eliminates the need for label substrates, glues and application. In addition, shifting to print on demand reduces both inventory storage and risk of obsolescence.



Major sustainability enhancements reducing environmental footprint across the entire decoration process and beyond



## Cutting-Edge Core Technology

Velox's proprietary direct-to-shape digital technology consists of two core technology elements – the ink and the system architecture – both developed specifically to deliver unparalleled digital printing performance. Velox's proprietary direct-to-shape digital technology comprises two core elements – breakthrough ink and innovative system architecture – both developed specifically to deliver unparalleled digital printing performance.

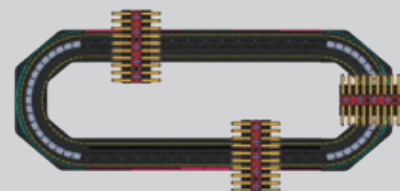
This end-to-end approach is essential to achieving a meaningful performance leap, reaching far beyond any other direct-to-shape digital printing technology. In addition to providing superior decoration quality and capabilities at high-volume production, Velox's technology enables a highly efficient and flexible production process and a significantly lower total cost of ownership (TCO) than any other direct-to-shape digital printing technology.



### Adaptive Deposition Architecture™ (ADA) Technology

Robust system architecture enables utmost precision and flexibility, with inherent scale and expansion capabilities.

- Multiple independent print engines – Parallel printing of hundreds of containers in a smooth mechanical movement enables superior print quality with mass production
- Process optimization – The autonomous carriage mechanism decouples the dependency between print stations and allows a nonstop process regardless of the time required at each station
- System scalability – Extremely efficient hardware utilization, with easy optional field upgrades, support higher production speeds, additional colors and features
- Accurate ink-drop deposition – Dedicated motion system and algorithms perfect image sharpness and color matching



Dependency-free process



### Variable Viscosity Ink™ (VVI) Technology

Specially developed and formulated Velox digital UV inks enable excellent print properties, unprecedented decoration quality and high ink efficiency.

- Micro-pixel drop shape control – Enables both extremely small drop diameter for fine details and text and wide drop diameter for high ink coverage efficiency
- Wide color gamut – Exceptionally vivid and intense process colors
- Superb functional properties – High adhesion, robust scratch and heat resistance and low migration
- Substrate and surface-agnostic – Outstanding printing performance on almost any container material or coating



Micro-pixel drop shape control