

**Canon**

CANON SOLUTIONS AMERICA



## DYE SUBLIMATION SOLUTIONS

SMART CHANGE STARTS HERE.

# GETTING STARTED WITH DYE SUBLIMATION

## What is dye sublimation printing?

The dye sublimation printing process uses specialized inks that, under heat and pressure, permanently infuse into polyester fabrics and polyester coated materials for a water-resistant and rub-resistant print result.

## What can I print on using dye sublimation?

Dye sublimation can work with fabrics containing at least 85% polyester content as well as on polyester coated metals, woods, ceramic, acrylic, and glass substrates.

## What types of printed products can I make with dye sublimation?

A wide range of printed products can be produced using dye sublimation, including:

- Soft signage (flags, banners, backlit displays, silicone edge graphics)
- Personalized home goods (pillows, blankets, shower curtains)
- Sport apparel (jerseys, socks, performance wear)
- Promotional items (mugs, hats, T-shirts, phone cases)
- Photo prints (metal, canvas, wood panels)

And much, much more!

## What do I need in terms of equipment and materials for dye sublimation?

Dye sublimation printing can either be done using a paper transfer process or direct to fabric. Paper transfer, the most common method of dye sublimation printing, requires a printer compatible with dye sublimation inks, transfer papers, tissue paper, the polyester fabric or polyester coated substrate, and a heat press. Direct printing onto polyester fabric eliminates the need for transfer paper. Depending on the application, you may also need finishing equipment for cutting and sewing to produce the final printed product.

## What are the benefits of dye sublimation?

### It's Practical!

When compared to exhibition booths created with hard substrates, soft signage provides significant advantages in terms of the size and weight in shipping containers. Sublimated printing offers a high degree of durability both in terms of rub fastness, and wash fastness with bright, vibrant colors and results in the fabric being less prone to physical damage during booth set-up and take-down. The process provides the flexibility to print signage that can be viewed on a single side or both sides for applications such as flags. The final print fabric has no observable changes to the hand (i.e., the feel) of the printed fabric.

### It's Sustainable!

Polyester can be recycled and reduces the amount of landfill waste compared to vinyl and some rigid materials. You can also print on recycled polyester fabrics. Water-based dye sublimation inks contain neither organic solvents found in eco-solvents nor photo-initiators used in UV inks. Lastly, you can reuse polyester soft signage for trade show events to further reducing shipping and material waste.

### It's Affordable!

While it's possible to print soft signage on UV printers, dye sublimation ink is more affordable than UV inks. Transfer sublimation can work with lower cost untreated polyester. Dye sublimation helps eliminate the need for elaborate steaming, washing, and drying steps required in other digital textile printing processes.

# DYE SUBLIMATION PRINTERS

## Industrial Dye Sublimation Print Solutions



### DGI POSEIDON 64"/" data-bbox="70 240 324 274"/>

The award-winning POSEIDON offers both print service providers and inplants with one of the fastest speeds in its class for high-volume production with short delivery time frames. With the optional fluorescent Yellow/Pink or Orange/Blue inks, the POSEIDON can run at the same production speeds running with four- or six-color printing. The industrial grade Kyocera printheads combined with the optional Bulk Ink tanks and Mini Jumbo Take-up system make it possible to handle long production runs with minimal operator intervention.



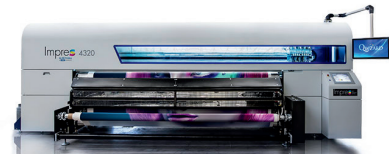
### DGI FT-3204X 10-FOOT HYBRID DYE SUBLIMATION PRINTER

The award-winning and affordable FT-3204X 10-foot dye sublimation hybrid printer incorporates the flexibility to print using paper transfer or direct to fabric. With mesh printing capabilities, maximum print speeds up to 2,690 ft<sup>2</sup>/hr, industrial parts, and proven Panasonic print heads, print service providers can move into the world of highly profitable dye sublimation applications including flags, backlit signage, display signage, banners, and trade show displays.



### DGI FH-3204 HYBRID DYE SUBLIMATION PRINTERS

The award-winning FH-3204 incorporates the combination of speed, hybrid printing, and optional fluorescent/six-color capabilities into a 10-foot dye sublimation printing solution. With durable Kyocera printheads, mesh printing, and print speeds up to 3,230 ft<sup>2</sup>/hr, the FH-3204 is an industrial workhorse for all soft signage, flag, tradeshow displays, and other large format printing applications.



### MS IMPRES HYBRID DYE SUBLIMATION PRINTER SERIES

Whether you're upgrading your existing dye sublimation production fleet or expanding your business into soft signage, the fully integrated MS Impres™ hybrid printers offer fast production speeds with industry leading color and image performance. Featuring maximum print speeds up to 4,952 ft<sup>2</sup>/hr, stable media positioning, precision control of media and print head, bulk media handling, industrial Kyocera print heads, and a large capacity ink tank for producing high quality soft signage, flags, and displays while maximizing productivity.

Four Models Available:

MS Impres 4180 (64"/300dpi) | MS Impres 4180 EVO (64"/600dpi)  
MS Impres 4320 (10'/300dpi) | MS Impres 4180 EVO (10'/600dpi)

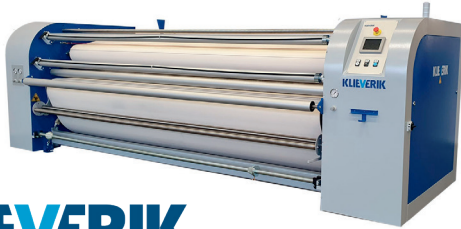
## Things to Remember About Dye Sublimation Printing

- Dye sublimation printing only works with white, gray, or light-colored polyester fabrics.
- The transfer process can be used to print on both fabrics and rigid materials.
- The direct process eliminates the need for transfer paper by printing directly onto treated polyester fabrics.



# HEAT PRESSES

Presses Designed for High Production without Sacrificing Quality



## KLIEVERIK

### KLIEVERIK GTC ROLL-TO-ROLL CALENDER HEAT PRESSES

Klieverik GTC roll-to-roll calender heat presses provide uniform heat across the oil-filled drum for consistent results with dye sublimation printed transfer paper and direct printed fabrics. These presses help print service providers achieve professional results with sharp edge definition, high processing speeds, less waste, and fewer re-prints. Available in 7.7" up to 19.7" diameter drums with working widths up to 10 feet.



## KLIEVERIK

### KLIEVERIK GTC SINGLE PIECE FLOWLINE CALENDER PRESSES

Building on the quality and performance of the GTC roll-to-roll calender presses, the Flowline series incorporates an infeed table that facilitates laying down single pieces of material into the press for fixation. The infeed table can be extended with one or more sections to handle a variety of fabric sizes. Available in 7.7" up to 19.7" diameter drums with working widths up to 10 feet.



## KLIEVERIK

### KLIEVERIK VERTEX HYBRID CALENDER PRESS

The VERTEX heat press achieves efficient production of single piece transfer printing as well as roll-to-roll printing. With sharp edge definition, a compact design and its oil-filled heating drum, this calender offers print service providers an affordable multi-purpose heat press solution backed by Klieverik's quality components and construction. Available with a 7.7" diameter drum and a working width of 64 inches.



### DGI SIERRA S64/S74 HEAT PRESSES

The Sierra S64 / S76 hybrid heat presses combine the benefits of single-piece and roll-to-roll applications at an affordable price point. With a 13.7" diameter oil-filled drum, the Sierra series heat presses are an excellent solution for shops looking to invest in their first calender press for dye sublimation.

## Square Feet vs. Linear Yards

- While transfer paper rolls are specified in square feet, fabric rolls typically come in units of linear yards.
- This means that a 1 linear yard of fabric equates to 16 square feet for a 64" printer and 31.5 square feet for a 10-foot (126") printer.



# FINISHING SOLUTIONS

## Industrial Cutting and Sewing Systems that Achieve Professional Results



### COLEX SHARPCUT DIGITAL FLATBED CUTTING SOLUTIONS

Canon Solutions America offers the Sharpcut™ Digital Flatbed Cutter and Finishing System as an industrial flatbed cutter for those looking to grow their business. This complete turnkey conveyor cutting solution helps automate a print service provider's workflow and reduce costs associated with the finishing process of wide format output. Textile cutting versatility is available using a driven rotary tool (DRT) or with the optional Synrad 40-watt laser, air cooled, CO2 laser option. The Sharpcut™ digital flatbed cutting system can help open doors to new application opportunities and tap into new revenue streams. With the ability to cut 10-foot-wide fabrics, the Colex Sharpcut™ is a versatile cutting solution for soft signage and other textile applications.



### MILLER WELDMASTER DIGITRAN

The Digitran System, incorporating a robust Durkopp Adler sewing machine, provides a complete solution for sewing silicone edge graphics (SEG) as well as an array of other digital textile sewing applications. The synchronized transport system for sewing makes it simple for operators to handle small or large projects in one workspace area.



### MULTICAM CELERO™ DIGITAL FLATBED CUTTING SOLUTIONS

The MultiCam Celero™ Series industrial flatbed cutters help increase finishing productivity and profitability for print service providers. Celero™ Series cutters have eight (8) cutting models to choose from. Each system can be equipped with conveyors for any business looking to satisfy the workflow demands of today and tomorrow. Using a driven rotary tool (DRT), print service providers have the versatility to cost effectively and efficiently cut a wide range of fabrics and other media. The Celero makes it possible to cut up to 10-foot-wide fabric for all your soft signage requirements.



### FOTOBA DREAMCUT XL SERIES AUTOMATIC X/Y CUTTER

The Fotoba Dreamcut XL Series digital cutters offer an automatic print finishing solution for trimming and X/Y cutting. Equipped with digital sensors, it compensates feed for misalignment for an exact cut. The Fotoba Dreamcut XL Series cutters are an ideal solution for cutting large quantities of canvas and textiles up to 40 mil thick. The optional textiles blades can provide accurate textile cutting.

## Cutting Fabrics

- Knit fabrics consist of a single, continuous yarn looped repeatedly to create what looks like a tiny row of braids. Cutting can be done with a laser or rotary tool without additional finishing.
- Woven fabrics contain multiple yarns that cross each other in right angles like a wicker basket. After cutting with a rotary tool, woven fabrics need to be sewn with a hem to prevent fraying. No additional finishing required when using a laser cutter.

# SOFTWARE SOLUTIONS

## Making Dye Sublimation Workflows Efficient and Productive



### ONYX THRIVE

Get double the Adobe RIP Engines, double the printer permissions, and double the Job Editors with ONYX Thrive, one of the only truly scalable end-to-end workflow solutions with network licensing for any size print shop. With the included Step and Repeat, Color Ways, and ink configuration builder features, ONYX Thrive allows users intuitive control to create patterns for apparel and fabric printing applications. ONYX Thrive's exclusive ColorCheck process control tool helps ensure color-consistent results over time and across all print devices. For textile cut-and-sew applications, ONYX Thrive allows users intuitive control to create patterns with PDF or any raster images and automated cutting workflows.



### PRINTSIGHT

PrintSight software from Canon Solutions America enables print-for-pay business owners and their production staff to closely monitor many important aspects of their dye sublimation printer fleet from anywhere on their network. PrintSight displays a range of data in an intuitive user interface allowing for real-time reporting of ink usage, square footage, print time, machine status, and more. For print shop owners, PrintSight gives the details needed to make informed decisions that maximize profitability while maintaining competitive pricing.

## Common Fabrics for Different Soft Signage Applications

Fabric Types	SEG	FRONT LIT SIGNAGE	BACK DROPS	BACK LIT SIGNAGE	TABLE THROWS	FLAGS	TENSION BANNERS
Soft Knit	●	●	●		●		●
Heavy Knit	●	●	●		●		●
Black Back Knit	●	●	●				●
Backlit Knit, Woven				●			
Triple White Knit	●		●	●			●
Gray Black Woven	●	●	●				●
Speedy Hybrid Woven		●	●	●			
Flag Knit						●	

# TRANSFER PAPER AND FABRICS

Consumables Tailored for Optimal Color and Quality



**NEENAH** COLDENHOVE

## JETCOL® TRANSFER PAPERS

Since introduced in 1998, Jetcol® has been regarded as the benchmark for the digital dye sublimation industry. Jetcol® is a coated sublimation paper with an extremely high transfer yield: up to 97%. Jetcol® offers a range of transfer papers to achieve a wide and bright color range, fine print detail, and consistent quality. It's this quality that can help achieve the same results with every print job, bringing more predictability into dye sublimation print production.



## KREA TEXTILES

Canon Solutions America partners with Krea Technische Textilien GmbH to expand and complement our evolving portfolio of printable textiles. Krea Textiles combines 30 years of experience and German engineering in the development and production of digitally printable textiles. Krea produces product in a fully integrated, in-house production facility, beginning with the weaving and knitting of the yarn through all stages of production. Krea's production process conforms to REACH standards, which are free of PVC and solvents. Krea's portfolio includes textile products for dye sublimation, UV-curable, and latex printing.

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## DYE SUBLIMATION FABRICS FROM CANON SOLUTIONS AMERICA

Canon Solutions America offers a wide range of woven and knit fabrics designed for backlit signage, SEG displays, tension banners, flags, home décor, and other applications. The fabrics produce consistent and uniform color and image quality results. Use Canon Solutions America's Dye Sub Media Finder to see the selection of available transfer papers and fabrics.





# OPPORTUNITIES IN DYE SUBLIMATION

- Need to increase your dye sublimation printing capacity?
- Want to bring your dye sublimation production in-house?
- Looking for new printing applications to expand your business?

## Look to Canon Solutions America for all your Dye Sublimation needs!



Whatever your print production needs, Canon Solutions America can provide you with a one-stop solution for equipment, ink, paper, textile, and software solutions for dye sublimation production printing.

Having partnered with the leading manufacturers of dye sublimation equipment and media, our solutions offer the best color, image quality, and productivity for your soft signage, apparel, personalization, and interior/home décor applications. Canon Solutions America backs these solutions with a nationwide support network and financing through Canon Financial Services.

Not sure where to start? Our dye sublimation experts can assist you to determine the best system for your dye sublimation print requirements.

For more information about our Dye Sublimation solutions, please call 1-800-714-4427 or email us at [us.info@csa.canon.com](mailto:us.info@csa.canon.com).

## PARTNERS



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