



Colorprint® Sublimated Emblems Technical Specifications

Product Details

ColorPrint® Sublimated Emblems bring artwork to life in photorealistic, full color detail. Using a palette of 16.7 million colors and a dye transfer sublimation process, inks become permanently part of a patented PennBrite® fabric that is specifically designed to optimize color. The result is a lasting photo-quality image with a smooth surface. A fixed price makes these emblems economical for artwork that is multicolor, has gradients or involves very fine detail. Made with 100% polyester materials and a PennBond® backing, durable ColorPrint® emblems withstand the harshest work conditions and industrial laundering. They are removable and reusable.

Emblem Dimensions:

- **Minimum** emblem size is **1.0" x 1.75"** (2.5cm x 4.4cm).
- **Maximum** emblem size is **8.0" x 10.5"** (20.3cm x 26.6cm).

Design Lettering Dimensions:

The text within a design should not be less than 2mm in height (9pt font size). Smaller text may need to be altered.



Sublimation Colors and Merrow Colors:

Sublimation colors are virtually unlimited.
Merrow Colors-see Penn Emblem Thread Chart

<http://pennemblem.com/services/color-charts>

Custom Fabrics & Threads:

To review your options call your Customer Service Representative at 800-793-7366

Backing Types:

Industrial backing only for heat seal or sew on.

Border / Edge Styles:

ColorPrint® Sublimated Emblems are manufactured with a **merrowed border**, a separately stitched over-lock edge. The ability to sew a merrowed border onto an emblem is directly related to the emblem shape. Odd, irregular and intricately shaped emblems may not be suitable for merrow application.



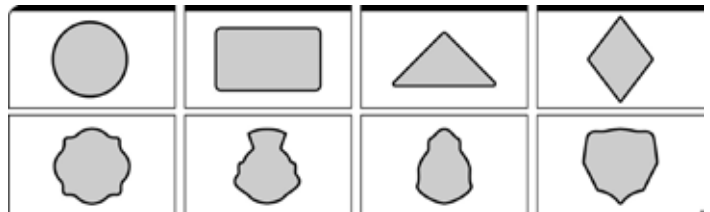
Merrow Border Limitations:

As noted above, ColorPrint® Sublimated Emblems are manufactured with merrowed borders. The edges of the emblem are guided through a surging, over-lock sewing machine by hand, and a heavy stitching is applied.

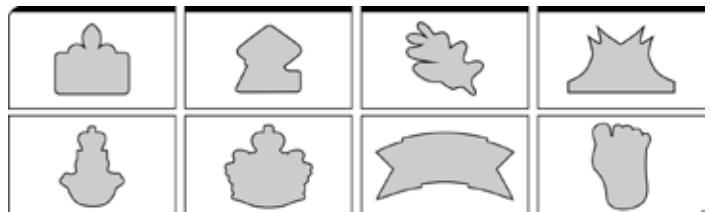
Shapes with edges that are completely open and "exterior" are more easily merrowed. However, odd, intricate shapes with edges that angle back towards the interior of the emblem, generally cannot be merrowed.

Merrow borders have a maximum width of 1/8."

Shapes that can be merrowed



Shapes that cannot be merrowed



Images are not to size.

Application With Heat Seal Machines

Application Methods:

Sew-on, heat seal or stick-on. The manner in which embroidered emblems can be attached to garments or other textile products relates directly to the type of backing used in the manufacturing process, the size of the emblems and the types of materials that the emblems will be attached to. Almost all emblems can be sewn on, and when it comes to heat seal application, smaller emblems are easier to work with. The chart below outlines the application options relative to backing types.

backing type	sew on application	hand application	hand iron application	heat seal application	heat seal settings			
					top (teflon)	bottom (sponge)	pressure	cycle time
Industrial	yes	no	no	yes	405°F (207°C)	405°F (207°C)	60-80 PSI * on gauge	12 to 14 seconds
Low-melt glue	yes	no	no	yes	340°F (171°C)	340°F (171°C)	60-80 PSI * on gauge	12 to 14 seconds
Velcro®	no	yes	no	no				
Pressure sensitive "stick-on"	possible	yes	no	no				

* These recommended settings are based on air operated heat seal machines with top and bottom heated platens.

Picture of top heat setup



Pressure Settings Depending on Platen Size.
Pressure Settings based on Texas Automation Heat Seal Machines with a 3" Cylinder.

2" x 4" 40-60 PSI on Gauge
3" x 5" 55-60 PSI on Gauge
4" x 6" 60-80 PSI on Gauge
3.5" x 5" 60-80 PSI on Gauge

Pressure Settings Depending on Platen Size.
Pressure Settings based on Natmar Heat Seal Machines with a 4" Cylinder.

2" x 4" 40-60 PSI on Gauge
3" x 5" 55-60 PSI on Gauge
4" x 6" 60-80 PSI on Gauge
6" x 8" 75-95 PSI on Gauge

Heat Seal Notes & Tips:

- **Thicker fabrics** may require longer cycle times beyond the ranges.
- **Treated fabrics** finished with coatings, sizing or repellants may not allow for proper heat seal bonding.
- Items made with leather, suede, nylon, synthetics, nylon-shell, interlinings, rubberized coatings and reflective fabrics, such as jackets and luggage, may react poorly to heat seal temperatures depending on thickness, weave, texture and weight. It is recommended that these fabrics be tested first, with possible heat seal time and temperature adjustments. In many cases, it may be better to have emblems sewn on to these materials.

Ordering Guidelines

Artwork & Set-up Fees:

An emailed sketch card or scan of your finished emblem is included with the order for no additional cost.

Order Quantities:

Low minimum quantities.

Payment Methods:

We accept Visa, MasterCard, American Express, Discover, Wire/ACH and Checks. However, if you choose to pay with check, and you do not have payment terms with us, we cannot process your order until we receive your check. This may not be the best method if the order is deadline driven - please speak to one of our sales associates to discuss the period required to process the order. If you are pre-paying for an order, you will receive an additional freight charged to your credit card after the order has shipped. In addition, we can set you up with terms.

If you would like to be set up with payment terms you will need to fill out the Credit Application form by clicking [here](#). Once the credit application is approved you will be able to place your order. You will receive your invoice when your order has shipped, and that invoice is due within 30 days.

Turnaround Time:

Most orders will ship in 10-12 business days. Rush pricing and delivery is also available on certain products for quicker delivery.

Change/Cancellation Policy:

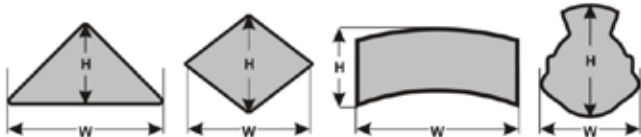
Please speak to a customer service representative to change or cancel an order.

Ordering Guidelines:

Order specifics. During the design, artwork and ordering processes, there are specific details that we require in order to proceed with your request, such as:

Emblem Type • Design Colours • Fabric Colour • Border Colour • Dimensions
 • Backing Type • Quantity • Special Delivery Needs

Emblem sizes are calculated by adding the height (h) and the width (w), then dividing by two. Example 2" (h) + 4" (w) = 6 divided by 2 = 3.



Accepted Design / Artwork File Types:

The chart below lists the various graphic and design file types that Emblemtek will accept for artwork and production purposes. Certain file types are preferred as noted.

Graphic File Types:

- CorelDraw (.cdr) **pref**
- Adobe Illustrator (.ai) **pref**
- Encapsulated PostScript (.eps) **pref**
- Adobe Portable Document File (.pdf) **pref**
- Joint Photographic Experts Group (.jpg) **pref**
- Portable Network Graphics (.png) **pref**
- Adobe Photoshop (.psd)
- Corel Photo-Paint (.cpt)
- Targa Bitmap (.tga)
- Tagged Image File Format (.tiff)
- Windows Bitmap (.bmp)
- CompuServe Bitmap (.gif)

Embroidery File Types:

- Tajima Stitch File (.dst) **pref**
- Wilcom EMB File (.emb) **pref**
- Pulse Embroidery File (.pxf)
- Tajima TBF File (.tbf)
- Barudan Stitch File (.dsb)
- Melco Expanded File (.exp)

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