

USING WASATCH SOFTRIP FOR DYE SUBLIMATION WITH FABRIC SUBSTRATES

Printer and SoftRIP Setup

Dye sublimation printing, like other printing, requires that the printer being used is in optimal condition to achieve the best results. In our testing, we have found the following steps should be taken to optimize the quality of the final print.

1. Perform any required media feed calibrations, unidirectional/bidirectional head alignments, and other printer-specific adjustments.
2. Configure any printer specific settings necessary for the transfer paper that is being used.

This may include setting up a media type, heater settings, head height, and other printer/media specific settings. The settings used for a Wasatch Imaging Configuration can be found by selecting **Setup** under the **Print** drop-down menu; select **Edit** by Imaging Configuration; then select the **Info** button. (Illustration 1)

3. Perform a nozzle check/test print before sending print jobs to the printer. If there are nozzles that are not firing properly, perform any required maintenance/cleaning to correct this.

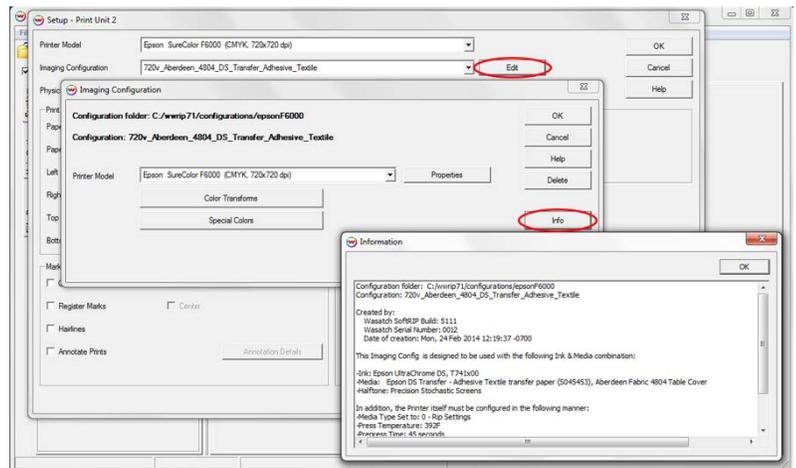


Illustration 1

4. The **Mirror** control in the **Setup – Print Unit** window in SoftRIP allows all jobs processed through a specific print unit to be automatically mirrored before printing. This eliminates the need to manually mirror each image that is opened in SoftRIP for dye-sublimation printing. (Illustration 2)

5. Be sure and store printed transfer images in a dry, dark and dust-free area if you are not immediately pressing them onto a substrate. Extended exposure to fluorescent lights can cause a color change when the images are pressed. Also, dust or oils from too much handling and other contaminants can affect the transfer process.

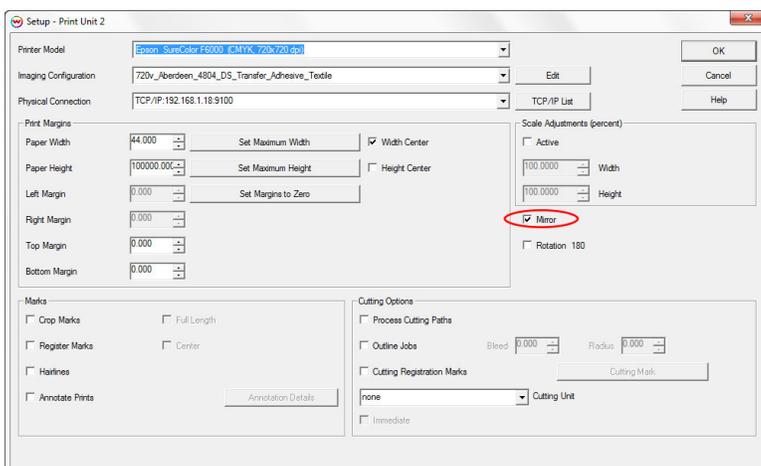


Illustration 2

Transfer of Image onto Fabric

In our testing, we have found that the following steps should be taken to optimize the quality of dye sublimation to fabric. This document assumes that an adhesive textile/thermal tack transfer paper is in use.

1. As fabric substrates may have different characteristics between the two sides, ensure that you know which side of the substrate is the correct side to sublimate.
2. In our testing, we have found that shaking the fabric substrate prior to placing it on the heat press and using a lint roller to remove stray threads/foreign material reduces the chances of unintended artifacts (colored lines) from occurring when the image is sublimated.
3. Pre-press the fabric at **392° F. for 45 seconds at 70 PSI**. Note that fabric substrates may shrink due to the heat of the dye sublimation press process, pre-pressing the fabric substrate reduces the potential of a transferred image to be deformed or the wrong size. In our testing, we have seen fabric substrates shrink up to ¼ inch across a 20-inch area after being pre-pressed.
4. If the transfer paper moves while the heat press is opening or closing, then ghosting/double images will occur. In our testing, we have found that using an adhesive textile/thermal tack transfer paper reduces or eliminates this.

Also, note that after pre-pressing the fabric substrate, placing the transfer paper on the heated substrate and then attempting to reposition the transfer paper can result in ghosting/double images occurring as the image may already start to transfer onto the warm fabric.

5. Press the fabric and transfer paper at **392° F. for 45 seconds at 70 PSI**.
6. After the fabric substrate and transfer paper have been pressed, remove the adhered substrate and transfer paper from the heat press and set the pressed substrate aside to cool; do not remove the transfer paper immediately. Attempting to remove the adhesive textile/thermal tack transfer paper while the substrate is still hot can result in stretching or deformation of the image. After the substrate and transfer paper have been allowed to cool, remove and discard the transfer paper.

FINAL NOTES:

In our testing, we used Epson SureColor® Dye Sublimation printers, Epson UltraChrome DS Ink, Epson DS Transfer Adhesive Textile Paper, Yarrington Mills MicroPolyester BODY FLEX fabric, and a Geo Knight DK25SP heat press. We have also tested using the Sawgrass VJ 628 Virtuoso® printer, Sawgrass SubliJet HD Ink, and Sawgrass TruePix Classic Transfer Paper.

The imaging configurations provided on our website were created at our office in Salt Lake City, Utah. Because environmental factors can affect the dye sublimation process, you may need to adjust the settings we used so they will work for your specific production environment. The following are some of the factors that may affect your output:

- Humidity (higher humidity typically requires longer press time)
- Pre-press time
- Press time
- Temperature of the press

For information regarding the required printer settings for the particular transfer paper and substrate combination in use, use the **Info** button displayed on the **Imaging Configuration** window in Wasatch SoftRIP, for the particular Imaging Configuration that you have downloaded from the Wasatch website. (Illustration 1)
(Select your imaging configuration in the Print Setup window, and click Edit > Info.)

Order of press items on heat press from bottom to top:

- Two sheets of craft paper
- Fabric substrate
- Transfer paper (placed after pre-pressing fabric substrate)