

DTG Printing on Fine Jersey

Use these tips to successfully print on these fashion garments.

By Terry Combs, Contributing Writer

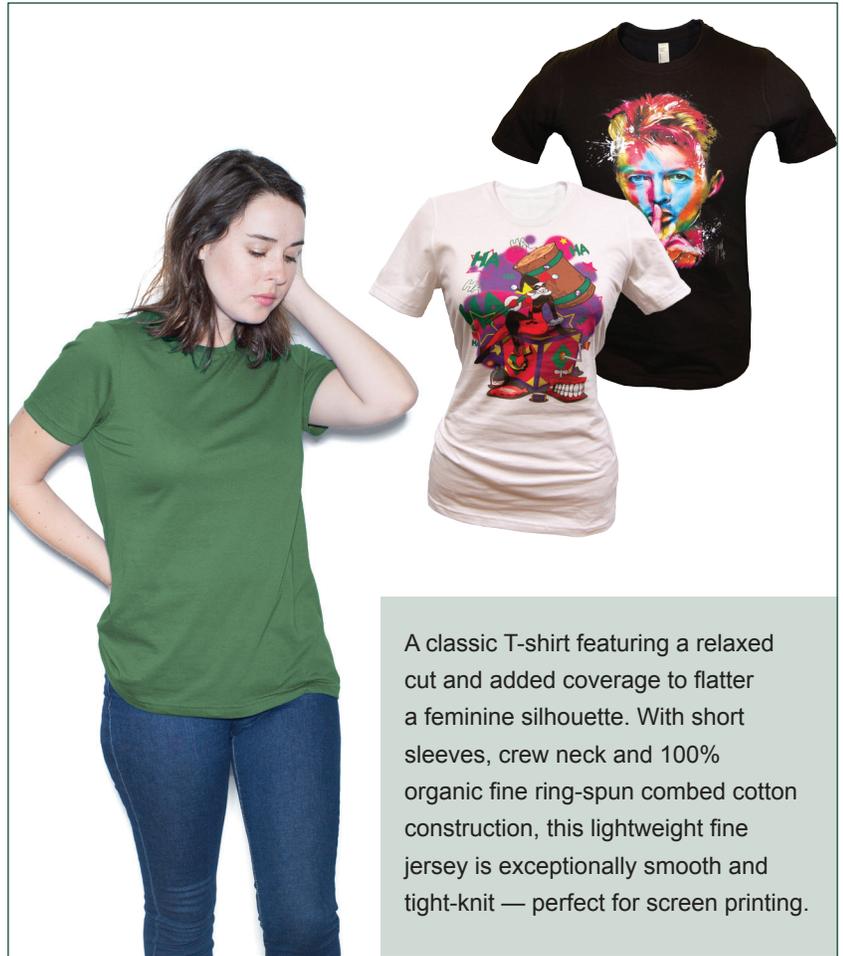
Direct-to-garment (DTG) printing is unique among garment decorating techniques because the garments will, in part, determine the quality of the final image. In other words, printing on a suitable garment will give you the potential for a perfect, bright, vibrant image. Printing on an unsuitable garment will result in a less-than-ideal image, regardless of the other variables you change. This goes beyond printing on 100% cotton, the ideal substrate for any DTG inkjet printer. In addition, you need a tight fabric weave and smooth surface for best results.

As an example of the proper garment, we've test printed on an American Apparel Fine Jersey Classic Woman's T-shirt (style 23215ORG). This garment is made of 100% fine ring-spun organic cotton with a fabric weight of 4.3 ounces. In this example, we've printed white and black garments.

For our test prints, we used the Epson F2000 DTG printer and a clam-shell heat press with auto release. For the dark garment, we used an automatic pretreatment machine.

WHITE GARMENTS

With white garments, pretreating is an option. The final image will be a bit more vivid with pretreatment, but the choice is simply a personal preference. There are specific pretreatment solutions made for light-colored garments. In our example, we did not pretreat the shirt. The white shirt image was created in Adobe Photoshop and saved at 300 dpi at full size (to be printed on the shirt) with a transparent background. The image was exported to the



A classic T-shirt featuring a relaxed cut and added coverage to flatter a feminine silhouette. With short sleeves, crew neck and 100% organic fine ring-spun combed cotton construction, this lightweight fine jersey is exceptionally smooth and tight-knit — perfect for screen printing.



Garment Creator software that is sold standard in the Epson F2000 printer package.

In the software, position the image where it will print on the shirt. Your screen shows the outline of the shirt holder and a representation of the artwork. By simply dragging the artwork, you will position it onto the shirt.

The software settings used were Light Color T-Shirt (standard), Color Print Quality Level 2 and a Print Option of Normal. Once the image is positioned on the screen where you want it to appear on the garment and you've selected your settings, the next step is simply to print. This example took about 90 seconds in a single pass.

After printing, the garment is removed from the shirt platen and placed on the heat press set at 330°F. A silicon-coated parchment sheet is placed over the image to protect the heating element from ink buildup. With light pressure, the garment is pressed for 45 seconds. With the auto-release option on the heat press, it opens by itself and the garment is finished and ready for delivery.

DARK GARMENTS

Printing a dark garment is accomplished basically the same as the white T-shirt in our previous example, but requires a few more steps. One difference is the application of pretreatment. This step gives the white ink a base to print upon. Without pretreatment, the white ink would be absorbed into the fabric and disappear.

In our black shirt example, we have pretreated the garment before printing. As with most standard T-shirts, the setting on the pretreatment machine is 50%. For heavier fabrics, such as a sweat shirt, you would adjust it to 60%. However, most T-shirts, including our American Apparel sample, work at 50%.

It takes about six seconds to pretreat the shirt using the automatic pretreatment machines. After this step is complete, we could allow it to air dry or go straight to the heat press for drying and immediate printing.

The heat-press process (again, set at 330°F) takes 20-30 seconds until the image area is completely dry. Again, use silicon-coated parchment paper to protect the heating element from a buildup of pretreatment solution.

To create the white underbase, the image is exported to the software as before, but this time we add a step. The settings are Color (the ink color) Print Quality Level 2



and White Ink Print Quality Level 3. Choosing a white-ink option in the software tells the printer it will print white ink first, reload the shirt automatically and then print additional colors on top. The sample print took about three minutes to complete both passes — white ink first, then a CMYK color pass.

After the second print pass, the shirt is removed and placed on the heat press. Covering with the silicon parchment paper to protect the heating element, the heat press is lowered and applied against the shirt with light pressure. The heat press will automatically release when curing is complete and the shirt is ready to be delivered. Heat press time for this image is 90 seconds.

Choosing the proper garment for DTG printing is critical. American Apparel's style 23215ORG is an example of a proper garment for this unique decorating process.

STEP-BY-STEP: WHITE SHIRT



STEP
1

The image to be printed is shown in the Garment Creator software. *All photos courtesy of Equipment Zone, Franklin Lakes, N.J.*



STEP
4

Heat pressing the finished print at light pressure, 330° F, for one minute, 45 seconds.

STEP
2

The American Apparel white T-shirt (style 23215) is being loaded on the Epson F2000 shirt platen.

STEP
3

The garment after the single-print pass for a completed image.

STEP
5

The finished printed shirt.



STEP-BY-STEP: BLACK SHIRT

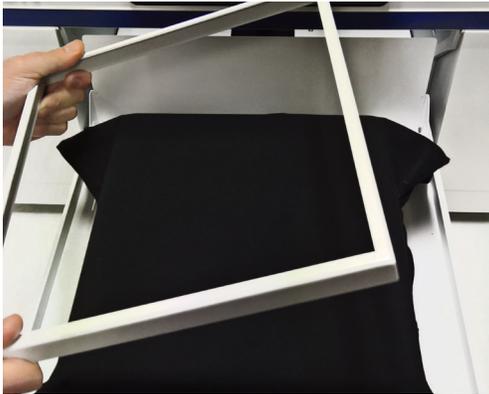


STEP 1 The image to be printed on the black shirt is shown in the Garment Creator software.

STEP 2 Pretreating the shirt using the automatic pretreatment machine.



STEP 3 The heat press is used to dry the pretreatment solution on the shirt before printing.



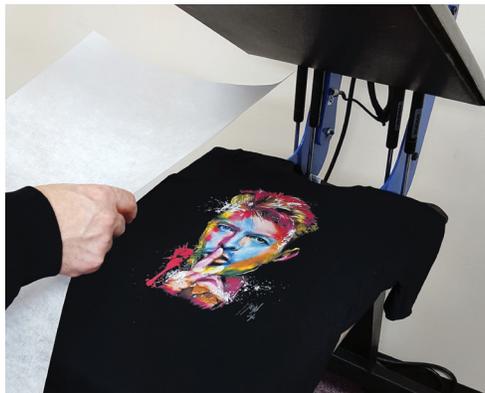
STEP 4 The American Apparel black T-shirt (style 23215) being loaded on the shirt platen.



STEP 5 The first pass on a dark shirt is the white underbase, which is created by the software.



STEP 6 Here is the garment after the underbase print and the CMYK pass of color to complete the image.



STEP 7 Heat pressing the finished print at light pressure, 330° F, for one minute, 45 seconds.



STEP 8 The finished printed shirt.

Terry Combs, has more than 35 years of experience in the garment printing industry, and has managed production shops large and small across the United States. He is currently in sales and training with Equipment Zone, Franklin Lakes, N.J., working from Scottsdale, Ariz. Keep up with Terry's classes, blog posts, speaking engagements and other resources on his website: terrycombs.com.