

Factors for Direct-to-Garment Printing Success

Here's how to execute a perfect print on a Junior Boyfriend Tee.

By Terry Combs, Contributing Writer

The garment-decorating world has shifted in recent years and now is irreversibly headed in a digital direction. Long-run production methods such as screen printing still have a strong place in the industry's future, but most companies will need business models that include a digital component to compete in this new world. This market change is customer driven. In the online, instant-gratification society in which we live, customers are demanding increasingly shorter runs and customization — and they want it today.

This *Impressions'* Tech Tips Newsletter, sponsored by Alstyle Apparel, will explore digital decoration via direct-to-garment (DTG) printing. For success, a few components must work together: the right artwork, properly applied pretreatment solution and the correct garment. The latter needs a tight weave and smooth surface for an ideal print. A suitable garment will yield the potential for a bright, vibrant image.

Printing on an unsuitable garment will never result in an ideal image, regardless of which variables are changed or adjusted. This goes beyond printing on 100% cotton; the key is using the correct 100% cotton garment.

For this article, printing was done on the Alstyle® 5501 Junior Boyfriend Tee. This garment is made of 4.3-ounce, 100% combed ringspun cotton and is available in 11 colors. Athletic Heather is made of 90% cotton / 10% polyester and Charcoal Heather is made of 50% cotton / 50% polyester.



The 5501 Junior Boyfriend Tee is crafted from 4.3 oz, 100% combed ringspun cotton – the softest we offer. This Ultimate Ladies tee is side-seamed for a relaxed fit and is available in 11 trendy colors in sizes S-2XL.

GARMENT FEATURES INCLUDE:

- Side seamed for a relaxed fit
- Set-in rib collar with shoulder-to-shoulder taping
- Double-needle sleeve and bottom hem
- Preshrunk to minimize shrinkage
- Tearaway label
- Eleven total colors
- Sizes S-2XL

Test prints were done on the Epson F2000 DTG printer, cured with the Geo Knight DK20 clam-shell heat press with auto release, and the garment was pretreated with Epson pretreatment solution in the Equipment Zone SpeedTreater-TX automatic pretreatment machine.

The full-front image was created in Adobe PhotoShop and saved at 300dpi with a transparent background. The image was imported into the Garment Creator software that comes as the standard print driver in the Epson F2000/F2100 printer package. This print driver is both PC and Mac compatible.

GETTING READY

With this Alstyle® ladies top, the Epson printer's standard 14" x 16" platen was removed. An optional 10" x 12" platen was used to better hold the garment in place for printing. The entire shirt was laid on top of the platen; threading the shirt onto the platen is not necessary with this equipment.

In the Garment Creator software, position the image on the computer screen in the place it will be printed on the shirt. The screen will show the shirt holder's outline and a representation of the artwork within. The artwork can be positioned by dragging it to the position where the design should be printed. When changing platen sizes, select the platen option in the software to ensure proper image placement on the shirt.

Printing a dark garment with white ink requires a few more steps than printing on a white T-shirt. One difference lies in pretreatment, which gives the white ink a base on which to be printed. Without pretreatment, the white ink would be absorbed into the fabric and disappear. As a personal preference, some decorators also pretreat white shirts to allow for a more crisp image and slightly better washability.

An automatic pretreatment machine offers consistent pretreatment-solution application from shirt to shirt. As



with most T-shirts, the setting on the pretreat machine for the Alstyle® Junior Boyfriend Tee was 50%. For heavier fabrics, such as a sweat shirt, adjust for more solution to be applied. In an automatic machine, pretreatment application takes about six seconds.

After pretreatment, a shirt can go straight to the heat press for drying and immediate printing. The heat press is set at 330°F and takes about 30 seconds until the image area is completely dry. It can be helpful to use silicon-coated parchment paper to protect the heating element from pretreatment-solution buildup. Use heavy pressure when drying the solution to lay down the shirt fibers and get the best possible print.

If you pretreat and store shirts, press them again on the heat press for five seconds just before printing to lay down the shirt fibers.

In the Garment Creator software, the settings are Color (the color ink) Print Quality Level 2 and White Ink Print Quality Level 3. Choosing a white-ink option means white ink will be printed first, then a color pass will be printed on top. This sample print took about 2.5 minutes for the white-ink and CMYK passes.

NEXT STEPS

After the second print pass, the shirt is removed from the platen and placed on the heat press. Covering with the silicon parchment paper, the heat press is lowered and applied against the shirt with light pressure, which is critical. Heat-press time for this image was 90 seconds — or

45 seconds for each ink layer. Wash testing always is recommended when decorating a new garment.

SLEEVE PRINTING

With DTG printing, you are not limited to the front or back of a shirt. You can print in any place you can apply pretreatment. A wide variety of shirt platens are available. In this example, the Epson 4" x 4" sleeve platen was used to also decorate the shirt sleeve.

Printing a logo in this location is an ideal promotional option for many clients — and an upselling opportunity. This platen also can be used to print personal labels inside the collar.

Choosing the proper garment in this niche of DTG printing is critical. The Alstyle® 5501 Junior Boyfriend Tee is an example of such for this unique decorating process. With the right fabric and factors in place, you have the recipe for DTG success.

STEP-BY-STEP

** Special thanks to Mike Frankow of Evolutionary Screen Printing, Lakeland, Fla., for allowing use of the company's printing facility and supplies.*



STEP 1 The image to be printed is shown on the Garment Creator software, which is PC and Mac compatible.



STEP 2 The Alstyle® Apparel 5501 Junior Boyfriend Tee is being pretreated on the SpeedTreater-TX.



STEP 3 The garment is being loaded on the Epson F2000 10" x 12" shirt platen.

STEP-BY-STEP:



STEP
4

The garment after the white underbase is printed.



STEP
7

Loading the garment sleeve on the Epson 4" x 4" sleeve platen.



STEP
5

This image shows the garment after the second color pass for a completed print.



STEP
8

The sleeve was printed on the Epson F2000.



STEP
6

Here, the finished print is being pressed using light pressure at 330°F for 90 seconds.



STEP
9

The finished shirt.

Terry Combs is a 35-plus-year veteran of the garment printing industry and has managed production shops large and small across the United States. He has written hundreds of management and technical articles for garment printing publications and spoken at industry events worldwide. 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