



## How to Get Started Transfer Printing

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### Introduction

Okay, so you want to print transfers. You've either heard that it's an easy process or you shouldn't touch the darn things with a ten-foot barge pole. Either way, here you are on the brink of a decision, and you've heard how innovative, cost- and labor-saving transfers are, so what the heck! You've decided to take the plunge and learn all you can about them. Printing heat-applied transfers should not be a leap into the dark unknown. Indeed the overall potential for transfers in this challenging graphics-for-garments world can be an easy stroll into the brightest light of day. As long as you have taken the time to formulate a game plan, you can become successful in your endeavor to make and print transfers.

### Are you a candidate for transfer printing?

- **You have a sound customer base.** You're already printing onto t-shirts, sweats, polos and/or caps and you have loyal customers who are likely to show interest in new concepts.
- **You are taking repeat orders.** You're taking orders for single and multi-color designs, large format and small decoration, but many of your customers don't have major changes in the designs of company logos or graphics. They do need their artwork printed on array of garment sizes, colors and styles.
- **You are being asked to print short runs.** For short print runs, transfers are an added bonus. The set-up and application times can be vastly reduced over a direct print. Printing in multiples instead of one print at a time has its dollar benefits. By having printed transfers on hand in storage, you can avoid setting up the press for your customer's last-minute request.

It is here, in this area of changing values, that there can be a happy hunting ground for the transfer concept. The true value of transfers lies in the ability of the printer to estimate his market without the initial downside of a garment purchase. Transfers provide a great deal of flexibility without tying up expensive garment inventory. For example, you can easily use transfers to add a name drop to a direct-print stock design. Additionally, rejects become less of a worry since the cost of printing a reject transfer is far less than having a reject garment because the print is at fault. With transfers, you control your inventory of ink and garments; your ink and garment inventory doesn't control you. Fusing the transfer onto the garment off-site and in a clean environment is also a heat transfer bonus.

If you're concerned about the quality of your work, rest assured that the quality of transfers is now very comparable to direct-print applications. Hot-split transfers applied to dark garments have great opacity and soft-hand feel. Colors do not always require a white underlay to secure opacity. You can print fine line, high definition graphics using transfers without ink spread or graphic image distortion, and small, high definition graphics can be printed on finished garments alongside stitched seams without losing adhesion or transfer definition.

## Specialty Inks - Innovative Transfers

What about specialty inks? Can you be innovative with transfers and use them to secure new business? Producing transfers with special effects is nothing new to established transfer manufacturers. Indeed the transfer manufacturer has often driven the innovation of specialty printing effects in our industry.

Glitter, shimmer, metallics and puff-enhanced transfers have been with us for a long time now, and the urgent market need for both direct and transfer printing of "specialized" systems continues to be very positive. During recent years the need is not only to create new innovative transfer printing systems, but to improve the systems already available. This is mostly true of puff transfer inks, where a wider window for gelation, puff height and adhesion to the garment has been the priority.

As with any 'Special' inks concept, the ink can produce certain effects that will aid the saleability and visual qualities of the design graphic. The combination of excellent artwork and specialty inks can create a product that will increase the interest and buying potential of the graphic on the garment. For instance, the use of small areas of puff and shimmer metallic inks, expertly integrated in subtle areas of the artwork can truly turn a somber and ordinary graphic transfer into an exciting piece of wearable art.

So, all things considered, if it sounds like transfers may be the way to go for you, by all means, read on:

### Shopping List

In order to get started printing transfers, you will need several items.

- A conventional transfer printing machine: Hand-bench, semi-automatic, or fully automatic transfer printing machines are available. You can print some simple designs using direct print platens, but without the use of air vacuum platens, repeatable image registration is difficult. I personally do not recommend printing detailed or multi-colored designs using a non-vacuum bed.
- Inks that are specially formulated for printing transfer graphics onto paper, such as Transflex.
- An accepted transfer paper with good release and hold-out characteristics. The ink must release easily from the paper during application, and it must not absorb into the paper during storage. (You can use a first-down clear, like 10007TF Clear, as a paper release coating to assist in the release process) Transfer papers must be very stable when exposed to moisture and heat. Poor quality papers may shrink, expand or curl when exposed to the elements, causing poor registration.
- Printing squeegee blade that suits the graphics and screen mesh you are using.
- Screen with image in reverse way reading - for transfer printing only.
- Ink drying equipment for gelling the transfer at temperatures of 175-240 F
- A quality transfer press for applying the transfer to the garment. When purchasing a heat press, cheapest is not always best.

### How to Print Transfers

#### Printing Transfers on Paper

- When using multiple ink colors with hot-split inks, be sure to butt-register, rather than overlay ink on ink. If ink overlay occurs, ink/color strength will be impaired when the transfer is heat fused onto the garment, as the inks tend to show through after hot-splitting.
- Pre-heat paper in a dryer to 300 F, then print immediately to maintain registration, or cover with plastic sheeting. You can heat the paper to the point of it turning slightly brown without harming the printing process. The paper also may be stacked in a temperature-controlled oven with a temperature set in the region of 100 F. The battle is to remove the moisture completely from the transfer paper, and the war is keeping moisture out of the paper during the printing process.
- Lock the silk-screen frame into position on the transfer printing machine and position the paper. Pour transfer ink onto the screen.
- Print the image with the squeegee.
- Lift the wet transfer and send through a drying unit, either infra-red, gas, etc. which will gel the transfer inks at a temperature of approximately 175-240 F. The drying requirements will vary depending upon the thickness of ink deposit, the type of dryer used and the length of the oven.
- Stack the transfers at the end of the conveyor belt, prepare for cutting, counting and packing.
- Store printed transfers carefully by keeping them in a stable environment.

## Heat Pressing Transfers on the Garment

- Use a conventional heat press, either an air-assisted automatic type or a manual machine.
- Be sure that the heat press thermostat reading is "actual" heat on the heat press- hot plate
- Set pressure for machine to suit the transfer and fabric/garment type
- For "standard" hot-split inks, set the heat press as follows: 375 F for 7 seconds, 45 PSI (medium firm pressure), depending on the transfer ink type.
- For cold-peel transfers, set the heat press as follows: 365-375 F for 10 seconds, 45 PSI. Allow transfer paper to cool before removing from garment

Hot-peel transfers are transfers in which the transfer paper is peeled away from the print while the paper is still hot, while cold-peel transfers are allowed to cool before the paper is stripped away. Cold-peel transfers generally have a more plastic-feel surface.

## Conclusion

For me, the day of the "slab" ink printing graphic is over. To have a breathable graphic image fused onto a garment, where the ink is an integral, soft-feel part of the garment and its fibers, is where we really want to be. This is especially true for fashion concepts.

With the introduction of new fabrics and garment types in sync with current wearable trends, the future for transfer specialized systems is progressive and exciting. Reflective and durable glow-in-the dark inks are just two systems that will create further interest in this area of print for textiles.

Softer, more durable ink systems with or without special effects will continue to find an eager audience, and with the advances in transfer paper technology, ink enhancement, printing ethics and computer enhanced graphics, I see many reasons to suggest that the innovative transfer will continue to create headlines in the new millennium.

For more information on Wilflex/Plast-O-Meric transfer ink systems & how to use them, go to [www.wilflex.com](http://www.wilflex.com) or call our toll-free Technical Services line at 800-735-4353.

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