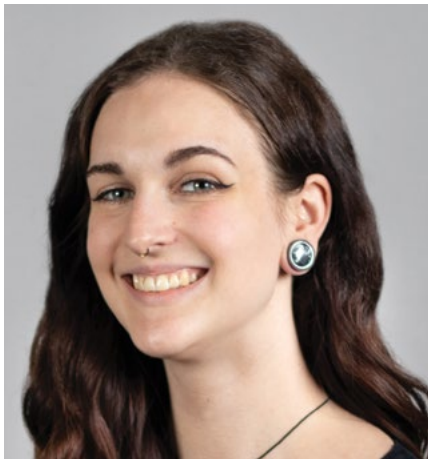
TAKING TEXTILE PRINTING TO THE NEXT LEVEL

Environmentally friendly and economical from the first piece, direct-to-garment printing is set to become increasingly popular with manufacturers and consumers, believes Emily Bovens



Emily Bovens is a Graphic Designer at Brother

The topic of sustainability and environmental friendliness is an important issue in the textile sector, and an increasing number of manufacturers and producers of textiles are now considering how they can create their printed textiles and goods in a more environmentally friendly and sustainable way.

There is already a simple and straightforward solution for this: DTG – direct-to-garment printing. DTG printing not only offers benefits to many types of businesses, but also provides many solutions to environmental issues that other printing methods simply cannot match and is therefore becoming the future of textile printing.

ADVANTAGES OF DTG

The first important point that direct-to-garment printing offers is its high versatility. Using equipment from leading manufacturers it is now possible to print on pretty much all fabrics, starting with cotton, of course, but also leather, imitation leather and polyester. With the addition of interchangeable plates that can be used to print shoes, bags, sleeves and trousers, for example, you have countless creative options that can be integrated into many different business models. The advantage here is that you only need one machine for printing, which saves a lot of resources, time and space compared to other printing methods such as screen printing.

In contrast to screen printing, the direct-to-garment printing method eliminates chemicals such as solvents that can be harmful to humans and to the environment, making it not only safer for the environment, but also suitable for baby and children's clothing, thus opening new avenues in this sector.

When you talk about chemicals, of course, you quickly think about the ink used in the printers, which is also a very relevant point, because here, too, leading printer manufacturers often use water-based ink that is not harmful to humans and is sometimes even biodegradable – some of the inks are even certified by OEKO-Tex or other institutes.

"Interchangeable plates can be used to print shoes, bags, sleeves and trousers"

REDUCING WASTE AND ENVIRONMENTAL DAMAGE

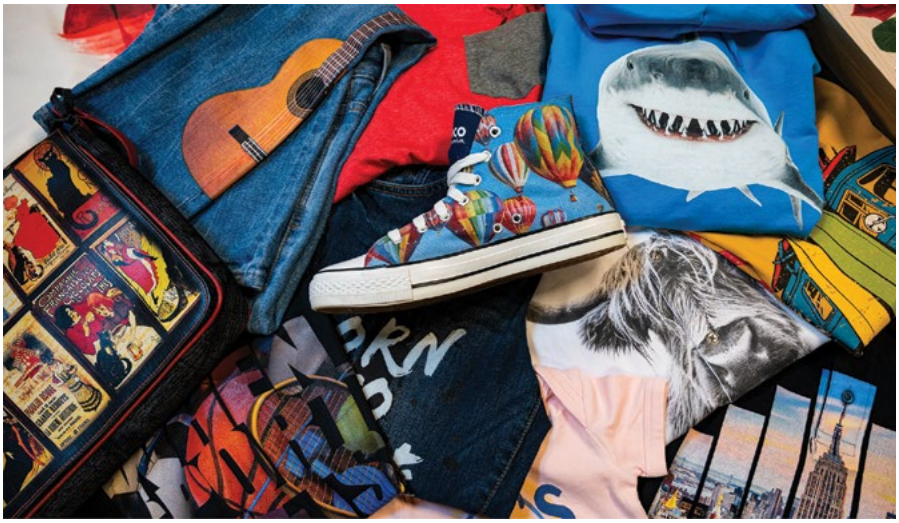
A big problem for the textile industry is the amount of waste it produces. Fashion trends are changing faster than ever and the number of products, especially clothing, that end up being thrown away, even if they are brand new and never worn is a threat to our environment and something that should be worked on as soon as possible.

For many printing processes, a large quantity of a print must be produced in order for it to be profitable. For example, sometimes a clothing manufacturer has to print hundreds or even thousands of t-shirts with the same prints, which not only costs them a lot of storage space, but means that that many of the garments may end up in the trash when there is no longer a need for them, or if they don't get sold.

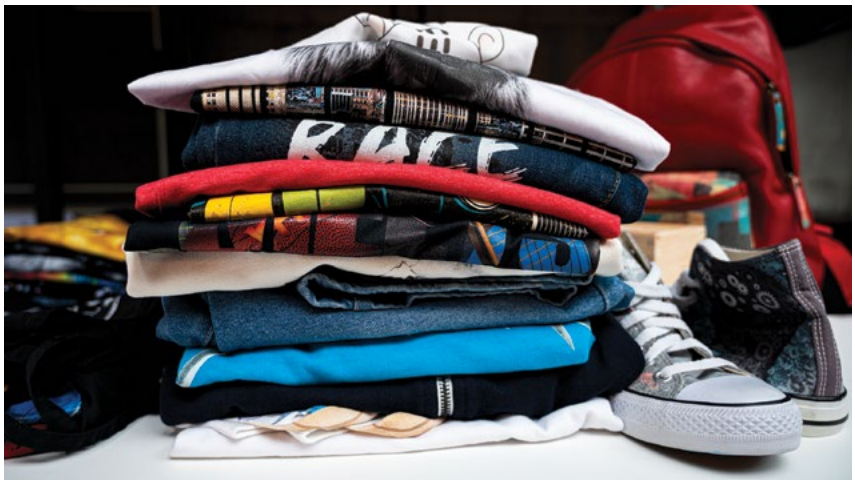
With direct-to-garment printers you can produce economically from the first piece; even smaller print runs are easy to produce, which means less waste. This also offers the flexibility to react quickly to new trends and to change the design that is going to be printed. Using DTG you can also produce individual pieces economically and thus respond to explicit wishes or changes from customers, thereby creating an unprecedented level of individuality that many people are striving for. In this way, you don't have to produce many pieces in advance that cost a lot to store and deliver and can lead to a lot of waste – you can simply retrieve data that has already been created and then print and produce individual pieces again and again.

"A big problem for the textile industry is the amount of waste it produces"

Another fact to keep in mind is the ecological footprint that is left when clothes are being manufactured. To create a t-shirt you use about 4,100 litres of water. By using the direct-to-garment printing technique to cut down on waste you can also conserve a lot of important resources.



Designs remain well-preserved even after multiple washes when DTG printed



With direct-to-garment printers smaller print runs are easy to produce, which means less waste

DURABILITY AND FEEL

Another important point to be considered when it comes to theme of garment printing and the resulting prints is of course durability, because it would not be sustainable if the print on the used material did not last long, or came off or faded quickly due to washing. There is no risk of this with direct-to-garment printing: the prints remain well-preserved even after multiple washes; they do not fade quickly and stay the same – making the clothing suitable for everyday use in any situation. You should also know that with DTG printing, there are no limits when it comes to designs:

"Prints produced by the DTG print method are very soft and comfortable to wear"

you can print very fine details as well as large, photorealistic prints.

There is still one more thing to consider and that is how does the print feel in general? What is the haptic like? How does the texture feel? I can answer all of these questions reassuringly: prints produced by the direct-to-garment print method are very soft and have a good general feel; they are comfortable to wear and don't feel stiff and heavy as you may have experienced with other print methods. After all, no one likes to wear an unpleasant print, and very inflexible prints are poorly suited to the sports sector.

INDUSTRY 4.0

When we talk about environmental protection, less waste, fewer toxins and safe methods for people and the environment, we cannot avoid the topic of Industry 4.0. But how exactly are direct-to-garment printers, environmental protection and Industry 4.0 connected? Quite simply, when we talk about a change in industry, we are talking about digitalisation. When we talk about Industry 4.0, we are also talking about more digital workflows, which is where we have already arrived with direct-to-garment printers: some DTG printers from leading manufacturers can be perfectly integrated into an existing workflow; while others are offering digital solutions along with their printers.

In the near future most print solutions will probably be online, as well as print files that can be sent directly to the printer from anywhere in the world. As a real life example, some stores offer already 'print on request counters' where a costumer can create their own design or the exact t-shirt they want, and the design can be printed instore or wherever else in the world. This is also an example of saving storage space, which, as I mentioned earlier, can be a problem with other printing techniques.

When talking about print files we should keep in mind that there are already software solutions that make it simple to convert design files into printable files within seconds, which makes the whole process faster, easier and will lead to a higher quantity. As the number of printer solutions available online increases, you will get an improved online service and also a better and easier shopping experience for the consumer.

CONCLUSION

As an environmentally friendly solution which saves a lot of resources, time and workload, direct-to-garment printing should become increasingly important to the industry and to discerning customers. DTG will be the future of printing. ■

Emily Bovens is a Graphic Designer at Brother

Further information:
Brother Internationale Industriemaschinen GmbH., Emmerich am Rhein, Germany
tel: +49 2822 609268
email: e.bovens@brother-ism.com
web: https://gt.global.brother