



PRINTING T-SHIRTS: A HOW-TO GUIDE



INTRO TO SCREEN PRINTING

At Easiway we're all about helping screen printing businesses of every shape and size. Our specialty? Developing sustainable cleaning solutions and equipment that are tailor-made for the screen printing industry. With our products and resources, print shops can reduce their environmental impact, save money, and ditch those nasty hazardous chemicals. Everyone benefits!

Ready to explore the art of screen printing? This guide outlines the process, materials, and key products to kickstart your screen printing business.



The background features a large, light gray watermark of the EASIWAY SYSTEMS logo. The logo consists of the word "EASIWAY" in an arc at the top, a stylized "E" in the center, and the word "SYSTEMS" in an arc at the bottom, all enclosed within a circular border.

TABLE OF CONTENTS

PREPARE YOUR SPACE & ARTWORK	1
PRINT FILM POSITIVES	2
MAKE A SCREEN	3
EXPOSE THE SCREEN TO LIGHT	4
SELECT THE RIGHT INK	5
SET UP YOUR SCREEN PRINTING PRESS	6
PRINTING T-SHIRTS	7
CURING	8
CLEANUP	9
RECLAIM	10
FAQ	11

1. PREPARE YOUR SPACE & ARTWORK

It's essential to have a basic setup before you start printing. This checklist ensures that beginners have everything they need to get started and experiment with designs.

ESSENTIAL EQUIPMENT CHECKLIST

- Screen printing press
- Screens (various mesh counts)
- Squeegee
- Emulsion
- Exposure unit
- Ink
- Heat gun or flash dryer for curing
- Cleaning chemicals and supplies

SPACE NEEDED

A small **setup** requires about 6-10 feet of space which can fit a single-color tabletop press and basic drying **tools**. However, access to a larger area for proper ventilation, cleaning, and drying screens will make the process easier and more efficient.

DESIGN SOFTWARE

To create high-quality prints, your artwork must be in a format that works well with screen printing. Adobe Illustrator, Photoshop, and CorelDRAW are the most popular software options for creating detailed, print-ready artwork. These programs also offer tools for creating vector graphics, which are great for high-quality screen prints.

PREPARING ARTWORK

Convert your design to black and white for contrast, ensure it is at least 300 dpi, and print it onto a transparency. This will serve as your film positive in the exposure process.



2. PRINT FILM POSITIVES



Film positives are a clear sheet with the stencil of the design that is going to be printed onto a product. They will block light during the exposure process, leaving the emulsion underneath unhardened and ready to wash away.

You can print film positives using a compatible inkjet or laser printer, or get them printed at a local print shop. Make sure your printer is capable of printing on transparent sheets.

3. MAKE A SCREEN

A screen printing frame is made of wood or aluminum, with polyester mesh stretched tightly across it. This mesh holds the burned image and allows ink to pass through when you press it with a squeegee.

CHOOSING THE RIGHT MESH COUNT

Mesh count refers to the number of threads per square inch on the screen. The choice of mesh count is important for getting the best results:

- **Low Mesh Count (80-110):** Best for bold designs with thicker inks (such as plastisol).
- **Medium Mesh Count (150-180):** Suitable for general designs and fine detail.
- **High Mesh Count (200-300):** Ideal for intricate designs or thin inks, such as water-based inks.

TRANSFERRING THE DESIGN ONTO YOUR SCREEN

Make sure your screen is clean of any dust, lint, or debris. This ensures that the emulsion applies smoothly and prevents issues like bumps or pinholes. Then cover the mesh with emulsion.

Since emulsion is light-sensitive, the coating process is usually done in a darkroom equipped with light-safe yellow bulbs to prevent exposure to light. When applying the emulsion, you'll use a scoop coater. The size of the scoop coater should be chosen based on the dimensions of your screen, with a recommendation of about 4 inches smaller than the screen's width. Pour a small amount of emulsion into the scoop coater, just enough to cover the entire bottom evenly.





4. EXPOSE THE SCREEN TO LIGHT

Now it's time to expose your screen to light using your film positive. The emulsion on the screen will harden where the light hits, while the areas blocked by the design will remain soft and wash away, creating your stencil.

- **Exposure Units:** These can be purchased or made DIY. You can also expose your screen to the sun if you don't have an exposure unit, but consistency is key.

Once the screen has been exposed, rinse it with water. The unexposed emulsion will wash away, leaving the mesh open in the areas where your design was, effectively creating the stencil for printing.

5. SELECT THE RIGHT INK



The type of **ink** you use will depend on the fabric of the t-shirt and the desired print effect:

- **Plastisol Ink:** Popular for cotton and poly-blends. It's durable, easy to work with, and produces vibrant, opaque prints.
- **Water-Based Ink:** Ideal for a softer feel, often used on lighter fabrics like 100% cotton. It soaks into the fibers for a smooth, lightweight finish but may require curing for durability.
- **Discharge Ink:** Best for dark fabrics, as it removes the fabric's dye and replaces it with your design color. Requires 100% cotton for optimal results and may need a catalyst for activation.

6. SET UP YOUR SCREEN PRINTING PRESS



If you're a beginner, a **single-color tabletop** press is your ideal starting point! These budget-friendly presses are perfect for mastering the basics before diving into multi-color setups. Plus, they're straightforward to operate and won't eat up your workspace.

Before securing your screens into the press, tape off the edges of the frame with screen printing tape. This prevents ink from bleeding onto areas of the shirt where you don't want it.

For multi-color prints, it's crucial to properly register the screens so that each color aligns perfectly when applied to the shirt. If you're working with fine details or complex designs, using a press with a laser guide or micro-registration system can make the process much easier. Once you think your screens are aligned, always do a test print to check the registration and ensure that everything lines up as it should.

7. PRINTING T-SHIRTS



You may want to apply an adhesive spray or a grip mat before placing your shirt on the platen to help it stay in place. Then, load the shirt, align the printhead, and flood the screen with ink— this means spreading a layer of ink across the entire print area of your screen before applying pressure. After the printhead is securely locked in place, move the ink across the screen by pulling or pushing it to transfer the design onto the shirt. You may need to repeat this step for more ink coverage. For multi-color prints, repeat with the other screens.

PRINTING TIPS:

- **Alignment:** Use registration marks to ensure your design is aligned perfectly on each t-shirt.
- **Pressure:** Apply consistent, even pressure to the squeegee to push the ink evenly through the screen. Aim for a 45° angle.
- **Ink Load:** Don't overload the screen with ink; a moderate amount is sufficient to get a clean print.



8. CURING



You can use a flash curing lamp or heat gun to set (or cure) the ink. Curing the ink is critical to ensure your prints are durable and won't crack after washing. Plastisol ink requires very high temperatures to fully cure, while other inks may require different temperatures.

Congratulations, you've printed a t-shirt!

9. CLEANUP



Keep your mesh clear and your prints sharp with proper screen cleaning. Regular cleanup does more than protect your investment – it keeps those colors pure and your press running smoothly. No contamination, no dried ink, just consistent quality print after print.

- **Screen Cleaning:** Use a dedicated screen cleaner, such as Easiway's **EasiSolv Screen Wash** to wash the ink off. It's best practice to clean your screens as soon as possible after printing, as it significantly simplifies the process of removing ink and prevents the buildup of dried ink residue that can damage the screen and affect future prints.
- **Squeegee & Press:** Wipe down the squeegee and press to prevent any ink from drying. Check out **Easiway's Squeegee & Floodbar Wash**.

10. RECLAIM



Reclaiming involves removing the old stencil and emulsion from a screen so it can be reused for a new design. This **process** typically uses chemicals to dissolve the emulsion, allowing the mesh to return to its original state. This can be done with Easiway's **Dip Tank** solution. Dip Tanks automate a lot of the grunt work that takes a lot more time reclaiming manually.

Unlike most, Easiway **reclaim chemicals** are designed to be sustainable and efficient, breaking down emulsion quickly without excessive scrubbing.

FAQ

HOW CAN A SMALL T-SHIRT PRINTING BUSINESS SCALE UP THEIR OPERATIONS?

Scaling up requires adding multi-color presses, larger drying equipment, and possibly automated presses to handle larger volumes. Expanding to offer custom designs and online ordering can also attract more customers.

Larger production runs benefit from equipment like conveyor dryers, automatic presses, and storage for screens and inks. A registration system can also help streamline multi-color projects.

WHAT ARE COMMON MISTAKES FOR BEGINNERS TO AVOID?

- Using low-quality screens — Invest in reputable brands known for durability and performance to achieve professional-quality prints.
- Overloading ink — Excess ink can cause blurry designs and bleeding.
- Improper curing — Ensure ink reaches the proper temperature for the recommended duration to fully cure and create long-lasting prints.
- Insufficient cleaning — Neglecting thorough cleaning can lead to misprints and inconsistent results.

Beginners can easily avoid making mistakes like these by applying even pressure, thoroughly curing prints, cleaning screens immediately after use, and using good-quality materials/products.

Learn more about Easiway's screen printing products by contacting us (sales@easiway.com).

HOW CAN BEGINNERS LEARN MORE ABOUT BEST PRACTICES?

Beyond this guide, beginners can benefit from online tutorials and community workshops. Many resources also exist within screen printing forums and local maker spaces. Checkout [Easiway's blog](#) for more resources and best practices.

HOW DOES EASIWAY DIFFER FROM OTHER PRODUCTS?

Easiway products stand out by being eco-conscious, effective, and easy to use. They're specifically formulated for screen printers, minimizing environmental impact while maintaining high-quality results.

Learn more about Easiway's products and how they can kickstart your screen printing business by shopping online or with a distributor.

[SHOP ONLINE](#)

GOT QUESTIONS?

[CONTACT US](#)

[EASIWAY.COM](#) | (763) 972-6306

