

PLEASE READ BEFORE USING EQUIPMENT



Our 40+ years of experience will guide you through the basics of a print and outline the most common mistakes, how to avoid them and also how to correct a mistake if it occurs whilst printing.

The printing lessons form a critical part of equipment training and should be incorporated into the first print performed with your equipment (using your design).

- Learn basic screen printing technique using modern equipment
- Understand and avoid common printing mistakes for beginners
- Learn how equipment is used and why some items may have been supplied in your kit/ package
- Use in addition to operation manual. For use by novice and professionals.

Quality of fabric is important

Importantly you will begin to understand what's actually happening when you print and the relationship between fabric types and inks. The quality and construction of the t-shirt or garment affects print result. A low quality/ cheap material often contains polyester or synthetic (even when they claim to be 100% cotton), which will cause less ink to be absorbed than a cotton garment.

- It is the pigments absorbing into the fabric that give you a solid colour
- Lesson t-shirts are 100% Cotton Mens Tee's (specifications at www.NEHOCdirect.com/shop/clothing)

Making your screen

To start you must create your first screen - please refer to your systems instructions/ operation manual which covers how screens are created and mounted to a frame.

- An Metal Frame is recommended for Lesson #2

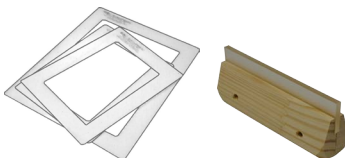
Print additional information

Print a copy of Information Sheet #25 (IS25) and Information Sheet #34 (IS34) as they will be referred to in addition to this sheet. They are available free online at www.EZIscreen.com/support

Prepare work area

A few quick minutes spent preparing your work area will speed your printing and ensure there are no 'bottlenecks' created once you get going.

- **Step 1** - lay out your work area ready for printing. A general layout is blank clothing on the left, printing equipment in the middle and drying racks/ hangers on the right.
- **Step 2** is to prepare your equipment. If using a jig (which ensures correct registration and speeds printing) apply the Table Adhesive to the board of the jig to make it sticky.



Prepare ink colour/s and squeegee. The amount of equipment you need really depends on the number of prints you will be doing and also the number of colours.

Flat/ Direct
Printing



Lesson #1 - Direct Printing Using Standard Fabric Inks

Using the white tee, we'll first practice the correct angle and pressure of the squeegee for printing – much higher than old traditional methods using lighter pressure. Use Standard Fabric Ink colours for this lesson. Slide the white tee onto the board of the jig to begin.

It's at this point you would perform the registration of the design in the jig (used for single or multiple colours), details of this process are supplied in the jig or see the support/ training section of the website.

Information Sheet #25 (IS25) details basic Screen Printing Technique, covering the correct angle and pressure to use. However **before** you print the t-shirt, **ALWAYS** perform 3-4 test prints onto paper first to check the screen has imaged correctly (perform any corrections at this point). Test prints are ALWAYS performed with any screen, new or old, before you print your actual garments - this is a good habit to get into straight away.

Remove the test paper and start printing your t-shirt - How did it look? Good, dark, light? Most likely it will be too light (as you may have gone across only once or too light pressure) or dark (more than 2 passes or too much pressure).

Look at your print - it will tell you if you need to adjust your technique. See 'Points to Note' on IS25.

Move the T-shirt round and have another try - we want you to end up covering it completely that's the point of the lesson - however before you cover it, lets understand how the angle and pressure of the squeegee will change the quality of your print - the basic do's and don'ts of printing - try these tests:

Test 1: Lift the angle of the squeegee up to about 75 degrees and hold the squeegee with just your finger tips (so you can't press down) - now print.

- The ink still flows through the screen and you will get a print, but it's very light and probably patchy, as not enough ink was absorbed by the fabric in the T-shirt.
- Now, using the same high angle and pressure, go across the design twice (in the same spot). The quality improves and the lightness is now forming a much clearer print, however you will probably still have a light patchy result.

In this example the angle of the squeegee is OK, however it's the light pressure on the squeegee that is causing parts of the blade to loose contact with the screen, so you get a patchy result.



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Test 2: Drop the squeegee angle right down to about 25 degrees and hold the squeegee in the palm of your hand so you can press down with more pressure - now print.

- The ink will flow up the blade/ handle of the squeegee, probably out the sides too, with the print heavy and a big loss of quality and detail in the design.
- Now, using the same low angle and heavy pressure, go across the design twice (in the same spot). The quality get's worse as you flood the fabric with ink - it simply can't absorb the ink, so it spreads and the design bleeds.

You can now graphically see how **pressure is not the key to printing**, it's used to keep the blade of the squeegee in contact with the screen. It's actually the angle of the squeegee that's more important - as it's the sharp edge of the blade that pushes the ink through the screen onto the fabric below.

Now compare the above tests to your first print. Was your initial technique too light or too heavy? You can now adjust to find the balance in between for a perfect print.

The basics of Lesson 1 are now complete. You are on your way for printing directly onto garments using standard ink and we hope that by the time you finish covering the white T-shirt your prints are even in ink coverage and the image is sharp. When finished, clean your screen and dry it off to begin Lesson 2 below.



Lesson #2 - Printing Dark Colours Using Opaque Inks

Printing dark fabrics using Opaque Fabric Inks requires a slight modification to your printing technique in order to receive solid prints time after time with no screen blockages.

The common mistake is to print directly onto the fabric, as per standard inks, and immediately fall into trouble, with the screen blocking and patchy prints.

Information Sheet #34 explains how to print Opaque Fabric Inks in detail. Before you can proceed, please ensure you have read this before moving on, as it's important to understand the basics of elevating your screen and the revised printing technique.

So what's happening when we print using opaque inks that's different to standard inks?

- Opaque ink is thicker than standard inks, containing 4 times more pigments, and will stick to the strands of the mesh much more than the thinner standard inks
- When printing direct using opaque, lifting the screen off the fabric will actually lift about 25% of the ink back up off the design, causing a patchy print
- Ink left in the screen will begin to dry causing less ink to be printed next time
- Excess pressure will reduce quality not improve the 'solidness' of the print

Follow the steps in IS34 and place the plastic under the edges of the frame to elevate the screen for 'off contact' printing. Height for an A4 design is normally 5-7mm, lower than 4mm and the screen is too low.

With your frame elevated start printing - you will see how the screen travels down to the T-shirt then lifts after you have printed. Look at your print, now **more importantly look at your screen** - it should be clear and free of ink.

Read the section on IS34 'Keep the design area clear of ink' - this is the key to printing opaque ink.

If your screen has ink left in it after printing, the ink will start to dry and block your screen, plus the print will look patchy. This is an advanced technique, but you will quickly learn that it's not as hard as it seems once you have a small bit of confidence - go on and finish printing the rest of the black T-shirt.

Ink left in the screen can also be caused by ink lifting back up off the design, not just your squeegee technique.

- Ensure your screen is raised above the design and can 'snap' back after printing
- Always use table Adhesive to hold the fabric/ items flat and still when printing to stop any lifting

There's a hidden lesson here for you carried over from Lesson 1 - the size of your design.

When you raise the height of the screen to print off contact, you lose the ability to print to the edges of your frame - as it can not travel down to the t-shirt - the higher you go the smaller the design can be on your frame. To print an A4 design you have to use an A3 frame.

- For this lesson don't worry if all your design can not be printed as you elevate the screen - the important lesson you must learn is printing off contact, ensuring no ink is left in the screen after printing.

A little confidence is the key printing opaque ink - simply put squeegee to screen and start - it's easier than you initially thought and you now know what is happening as you print.

By completing these quick two lessons you have made a great start, so use this opportunity to write down any questions, issues, concerns or problems you have that were not covered or resolved by the lessons.

You can also search the Website Support or FAQ's, send an e-mail (recommended as we can include links and/ or info.), or phone us for technical support at any time - remember we are here to support you.

Happy Printing and remember to only use quality materials, inks and squeegee's.



Product and Technical Support
Internet: www.EZIscreen.com

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