

Information Sheet #31 - Page 1/2

Registering multiple colours using a jig

With your screens made you are now ready to start printing. A screen printing jig [single or multiple colour] will speed your printing and most importantly make the prints straight & accurate. In this example we are going to print a 2 colour logo onto a t-shirt.

Important note before you begin



The location of your design may play an important part on how you layout and create your screens. The reach of a jig's arm combined with the frame size you use is important.

Left is a screen that has the arm at full extension but still covers the design area with room for registration.

Pictured right is a screen where the image is too low and the arm can not travel any further to reach the design area. This problem is caused by fitting a design to a frame that is too small for the outreaching areas of the jig.

By laying out your design & frames on top of the item in your jig before you begin to print you will avoid this problem.



Step 1



Colour separating your artwork is the most important aspect of multiple colour printing. If your artwork is out of registration then no matter what you do you will not get a straight print.

You can colour separate your design by hand or using computer, details for both processes are covered on separate NEHOC Training Sheets, available from the Training section of the NEHOC web site - www.nehoc.com.au/training/is/13

Pictured left is the sample design we are using, the 2 screens at the top and a copy of the complete design on paper at the bottom.

Step 2



Place a copy of the full design, with all colours/ layers present, onto the item and align as required.

This becomes your master template for registration of all the colours so it's critical you get this registered in the right place.

Once in place adhere the artwork onto the item with masking tape so it can not move.

Important

Ensure you use Table Adhesive on the board under your t-shirt so no movement occurs. This is important for both the registration process and for when printing.

When registering a design onto a t-shirt, slip the t-shirt over the board just like you would for printing, register the artwork and tape to the t-shirt. When complete remove the t-shirt with the designs attached, hang it up and look at the position from a distance or have someone else look at the design to check it's level.

Step 3

With a aligned design on the item, place it onto the jig to begin the registration process.

For T-shirts: Pull the t-shirt onto the board with the artwork attached - this is all you need to do! Proceed to step 4.

For flat items: To ensure the item is placed in the same position each time, we need to create corner/ side registration points on the board that the item will slot up against. Full details of this process are available in Information Sheet #30.

Important

Jigs differ in operation between models and functions - the following is based on the NEHOC Single & 4 Arm Screen Printing Jigs. If your jig does not have adjustable arms - as with S-361 Jig Hinges - then you may be required to move your item on the board before fine tuning the registration.

Step 4



With your artwork in place on the item, and your item in place on the jig, you can now register the first colour/ screen over the artwork. Pictured left, we are registering the lower part of the design first - you will note it is darker to see through as the screen has been imaged and you can see the artwork clearly through the design.

To register the first step is to loosen all the parts of the jig for easy movement. Place your screen into the jig and move the arm out - when in place tighten to lock in. Now you can fine tune the registration by moving the screen over the item as pictured. When in place, tighten the arm to lock the screen in place.

Hint

If you are required to print 'off contact' then insert the plastic raisers under the frame in the screen now before registration. When using the NEHOC Single & 4 Arm Jigs, place a piece of plastic between the frame and the tightening screw - this helps stop movement of the frame when tightening.

Step 5

With the first screen registered we now move onto the next screen - place the second screen over the artwork.



Pictured left, we are registering the top part of the design second - as with the first screen you will note it is darker to see through as the screen has been imaged and you can see the artwork clearly through the design.

The first step is to loosen all the parts of the jig for easy movement. Place your screen into the jig and move the long arm out and when in place tighten to lock in.

As with the first screen you can fine tune the registration by moving the screen over the item - when in place, tighten the arm to lock the screen in the jig.

Repeat the process above for all remaining colours/ screens. As you can see the process is really the same for 1 - 100 colours - it all depends on your designs and the number of colours you want to have.

Test the colour registrations by lifting the arms of the jig and lowering them back down over your artwork.

Printing

Print #1



With your screens aligned and ready to go, perform a test print onto paper over your t-shirts to check the screen.

When your screen is ready, remove the paper and perform the first print onto your t-shirt.

In this example we used Opaque Orange fabric ink, elevated 4mm using off contact style printing. 2 passes were required with the squeegee to provide sufficient ink coverage.

Print #2

With the first print performed, swing the 2nd screen round and lower over the design - now perform the 2nd print as per the first.

In this example we used Standard Black fabric ink, with no elevation. 3 passes were required with the squeegee to provide sufficient ink coverage on this darker background.

When lifting the 2nd, and subsequent, screen for the first time, take a little extra time to see if any of the ink from the first colour 'sticks' to the back of the screen. If this is really heavy & holding the screen as you lift you may need to dry between prints.



For further information and tips on using jigs please see the FAQ on Screen printing Jigs online in the Training section of the NEHOC web site - www.nehoc.com.au/training/faq

There are also training sheets online & free online video covering Screen Printing Technique, plus details on how to register single colours using a jig - www.nehoc.com.au/training