NEHOC Australia Pty Ltd
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'Off Contact' Printing

Also called 'snap' or 'elevated' printing

When the ink can not be absorbed or penetrate the surface you wish to print, you can not lay your screen directly onto the surface to be printed or the design will blur/ smudge when printed. The screen must be raised above the item to be printed by approx. 3-5mm, to create an 'off contact' style of printing. After your squeegee passes over the design area, and the ink is printed onto your item, the screen 'snaps' back upwards and the ink is left sitting on top of the item.

Important note on screen size

As the screen is elevated and must travel down to the item, there is a limitation on the size of your design in relation to the overall size of the screen - you can not print to the edges of the screen as with fabric printing.

With the extreme edges of the screen unusable the general rule is to have your design one third the size of your screen. This rule however is a guide only, as sizes printed are normally bigger than that suggested below:

S-9100 Small Plastic Frame - Design size 40 x 60mm
S-9101 Large Plastic Frame - Design size 60 x 80mm
S-9102 Small Metal Frame - Design size 100 x 160mm
S-9103 Large Metal Frame - Design size 150 x 300mm - You can print a full CD-ROM using an A3 Metal Frame [S-9103]
S-9104 XL Metal Frame - Design size 375 x 450mm

Use a jig or jig hinges

Printing 'off contact' is an advanced application, however with the right equipment the task is made very simple and actually no harder than fabric printing. The best thing you can do is forget printing by sight/ hand registration and invest in a screen printing jig which will provide the correct height adjustment & accurate registration of the print.

Correct Height

The aim is to elevate the screen above the item to a point just before the edges of the design can not be pressed down onto the item without stretching the screen.

The screen will naturally travel down to print the item with just the weight of the squeegee - you are not pressing much harder for this process - provided you have allowed enough room between the edges of your design and frame.

1. Place a copy of your original artwork onto the jig and create two alignment guides for the item.
 - This can be done by placing two pieces of plastic [two edges off the pieces of the Height Adjusters] along two sides of the item and tape firmly to the base of the jig.

2. Insert height adjusters [Plastic Height Adjusters are available from NEHOC code S-9112] into the hinge of the jig.
 - The screen now needs to be raised above the item to be printed as high as possible without the edges not coming into contact when printed.
 - The normal height is approx. 3-5mm however this may increase for solid areas which will 'stick' in the middle when printed.

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3. Press down gently on the top of the screen on your screen to check the height.
- If all the screen comes in contact then remove the frame and increase the height again.

4. If required, increase the height slightly by adding another layer of Plastic Height Adjusters
When the edges are too high and can not come in contact with the item below, the screen is too high and must be lowered slightly. This is the maximum height available.

5. Test the height again and make adjustment if required.
Note in some instances you may require as many as 8-10 adjusters under your screen - such as when printing a CD-ROM [design located in the middle of the frame] with an A3 Metal Frame. The actual height is not important, it's about checking the design to make it as high as possible without lifting the edges too far.

Hint

After you have printed off contact a few times, judging the height is very fast, however if you are a beginner don't stress out, just try a few 'dry' prints with your squeegee first to check the height. You are looking for a clean contact with the edges of the design without having to press too hard.

When the screen is too low

You will know very quickly as your prints will be:
1. Blurred or smudged: As the ink is printed the screen has not lifted and moves [the most minor vibration will cause a blur]
2. Printed item sticking to the back of the screen: Firstly check the base of the jig has not lost its adhesive - if so put on more Table Adhesive and try another print. If the screen is too low the ink does not print and stays in the screen to which the item will stick.

When the screen is too high

If you did not run your finger across the design area of the screen before printing to check if the edges would travel down to meet the item below, you will know on the first print if the screen is too high - the design will not print on the edges.
This is characterised by the design fading out rapidly towards the edge.
- The screen mesh will start to tear/ loosen from the frame if you continue to print [using excess pressure to print the edges].

Stop printing and clean the screen to start the registration process again.

Adjusting after you have started to print

If you perform your first print and find the item blurred or sticking [because the screen is too low], then you have two options:
1. Recommended option - Remove your screen completely and wash down under cold water to remove all the ink and clean the screen [so you don't have any printing problems]. Return the dried screen back to the jig and increase the height.
- By washing out you will have a much better view through your screen of the item below for registration and this also stops any problems with the screen drying.

2. Quickly loosen the jig hinges and insert another layer of Plastic Height Adjusters under the frame [or more if required]. Insert the frame and align over the item, however this is now more difficult as the ink will leave a mark on the screen making vision of the item underneath harder. Once registered commence printing again.
- If you are too slow then the ink may dry in the screen and you will have to wash out anyway.
- Re-registration using this process is more difficult