

Printing Plastics using PRINT GOCCO Print Masters

Plastics & metals are a non-absorbent material, so when we print them the ink sits on top of the item and then cures/ bonds as it dries, unlike fabric inks which are absorbed. To achieve a professional results we must do 3 things differently:

1. A finer grade of screen should be used to avoid mesh mark
2. The screen must be elevated above the item and printed 'off contact'
3. Aqua ink for plastics [or another suitable waterbased ink for plastics/ metals] must be used

Why a finer mesh is required

Non-absorbent materials do not soak up any ink so the standard 70Mesh, used for fabrics/ ceramics, leaves a 'mesh mark' - this is the pattern left by the strands of the mesh on the surface of the item as the ink can not soak in behind it. Pictured right is an example of 'mesh mark'.

To eliminate the 'mesh mark' we use a finer grade mesh that removes the strand pattern.

135Mesh ScreenMaster is a finer grade screen designed for this purpose, however it can not be imaged using Print Lamps, only the electronic RISO Xenon Lamp systems.

PRINT GOCCO B6 & B5 Print Masters are an ultra fine 200Mesh and can be used for screen printing in short run applications [up to about 500 prints].

Note: In some instances where the print quality is not required to be perfect i.e. elevated banners, standard 70Mesh Screen-Master may be suitable for use.



Materials required



Using B6 Print Masters [code: S-489]

1. Imaging system [NEHOC Screen Printing, Ceramic Printing Kit or PRINT GOCCO PG-5, PG-11, PG Arts, B6, B5, etc.],
2. 3 x Small Plastic Frame Mounts [code: S-9100]
3. 110mm Long Life Squeegee [code: S-510]
4. Aqua Ink for Plastics/ Metals [200ml Black Code PI-190]

Using B5 Print Masters [code: S-180]

1. Imaging system - PRINT GOCCO PG Arts for Paper or B5 model
- Smaller PRINT GOCCO models [PG-5, PG-11, & B6] may be used to image the screen as printing is performed outside the machine - imaging is performed in 2 stages as per a larger A4 screen printing screen [details for this process are on Information Sheet #05]
2. 5 x Large Plastic Frames [code: S-9101]
3. 170mm Long Life Squeegee [code: S-517]
4. Aqua Ink for Plastics/ Metals [200ml Black Code PI-190]



Step 1



Imaging your Print Master/ Screen

Remove your Print Master from the pack - imaging the B6 or B5 Print Master for screen printing is exactly the same as for Paper/ Card printing - instructions are detailed in your Operation Manual or on Information Sheets in the TRAINING section of the NEHOC web site.

Important

Remember to prepare your artwork by eliminating any moisture and excess carbon from the design using the Artwork Clean-Up Process first.

Step 2

Mounting your Print Master to a frame

After imaging your design onto your Print Master, remove it from the machine.

Prepare the plastic frame by remove the protective coating of the double sided tape along the two long edges of the plastic frame. Leave the tape on the two short edges of the plastic frame.

Tear the plastic flap from the Print Master, as pictured right, as this is not used when screen printing with the Print Master.



Place your Print Master onto the plastic frame with film side in contact with the double sided tape - cardboard facing upwards.

Your Print Master is now attached to the plastic frame by the long sides of the frame. You will note the Print Master is slightly shorter than the frame - this is why we leave the double sided tape on the short sides.

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

Step 3

Elevating the screen for 'off contact' printing

As the screen must be elevated for printing, the printable area of the screen decreases the higher we elevate - we cant print right to the very edges without tearing the screen!

As we are using B6 and B5 Print Masters the maximum size we can print is almost the same each time.

- ☆ A B6 Print Master [100x150mm] elevated with 3 frames give us 50mm x 90mm print size
- ☆ A B5 Print Master [165x235mm] elevated with 4 frames give us 110mm x 150mm print size. The B5 Print Master is elevated slightly higher as the larger the screen size the higher we need to elevate to stop the middle of the design 'sticking' when printed.

Place the additional plastic frames under the attached screen and test the height, pictured right. We are trying to elevate the screen as high as possible above the item BEFORE the edges are not able to touch the item below.



How hard should ou press to test

You should be able to gently press down over the design area with your finger and the screen will come in contact with the item. If you are pressing too hard you may stretch/ tear the screen. There is no need for hard pressure - use the squeegee if you are unsure and simply perform a dry print [instead of using your finger to test].

- ☆ If the edges do not come in contact with the item below then remove a plastic frame.
- ☆ If the edges easily touch the item add another frame and re-test

Remember, you can always increase/ decrease the height of the screen after you begin printing, as you use the straight edges of the frames for your registration [covered below] so changing height is fast & easy.

Step 4

Printing your design

By now you should have the Plastic Frames and Print Master stuck together and set to the correct height for printing.

The printing process is the same as for screen printing plastics, excepting you must use Aqua Ink for plastics. Do not use extra pressure on the squeegee when printing - the screen will naturally lower to the item when printing.

The final step is to register the print over the item, this best done using a Screen Printing Jig or set of Jig Hinges [code: S-360H]. Details for registering designs using a jig are available on Information Sheets:

- #30 Registering single colour designs
- #31 Registering multiple colour designs