

SP-275 Installation and Operation Manual



RISO SP-275 ScreenFax



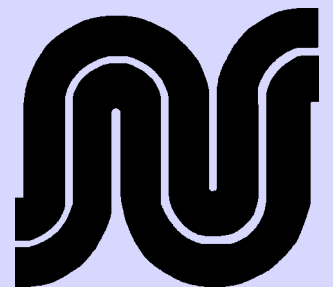
This manual has been prepared as a sample

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Features and procedures of the various methods

By Hand

Cutting

Features

Offers very sharp results for simple pictures and lettering.

Procedures

(When using varnished paper)

- 1) Coat the original with wax, and place it on top of the varnished paper.
- 2) Cut out the design on the varnished paper with a cutter.
- 3) Attach the remaining paper to the screen with an iron.

Blocking

Features

Allows for subtle nuances since the design is drawn directly on the screen.

Procedures

(When using paint and sealant)

- 1) Draw the design directly on the screen with paint
- 2) Cover the screen with sealant
- 3) Apply thinner to the paint

The Optical Process

Direct

Features

Since the design is burned directly onto the screen, image sharpness is limited; it is, however a good method for printing large designs or for high-volume printing.

Procedure

- 1) Prepare a film positive of the design
- 2) Coat the screen with developing solution
- 3) Attach the positive to the screen and expose it
- 4) Develop the image by bathing it in water

Indirect

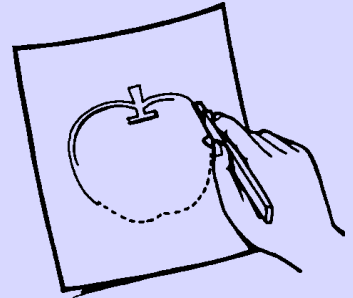
Features

Yields a sharper image than the direct method, but the screen is not as durable.

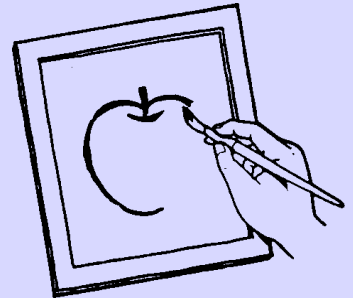
Procedures

- 1) Prepare a film positive of the design
- 2) Attach the positive to a developing film and expose it
- 3) Develop the image by bathing it in water
- 4) When development is complete, affix the developed film to the screen

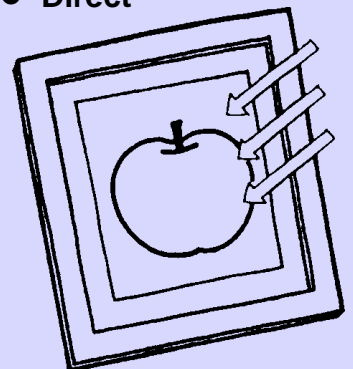
● Cutting



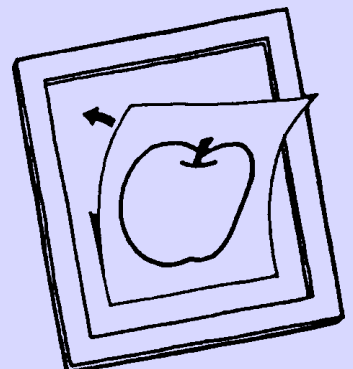
● Blocking



● Direct



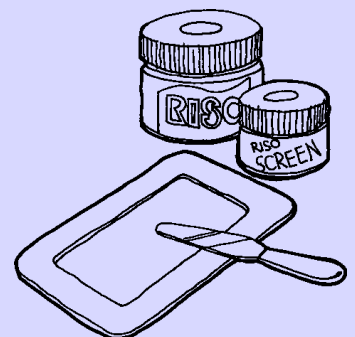
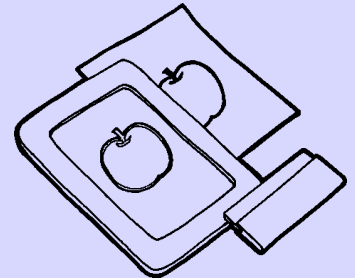
● Indirect



Features of RISO ScreenMaster

This is another of RISO's "world first" products – it enables the operator to produce an imaged screen in a few seconds. More important still is the fact that the end result is of "high professional quality".

- RISO Screen Master is a lamination of polyester screen mesh and a specially formulated plastic film and as such is ready for instant processing.
- No intermediate processing of artwork is required when using RISO Screen Master.
 - Simply use RISO Artwork Pens on plain white bond paper then process direct to screen
 - Plain paper photocopies and most printing in black from books, magazines etc., can also be used for artwork
- Print "READY" Screens in "LESS THAN 5 MINUTES"
 - Actual exposure time is "less than one second"
 - The processed screen is then attached to a "RISO Quick Mount Frame"
 - These frames are "reusable"
- Print Quality
 - Matches other screen printing systems
 - Superior print quality will be achieved using "RISO Squeegees" especially developed for the system
- Increasingly used by professionals and amateurs alike
 - Screen Printers and Sign-makers
 - Schools and Colleges of TAFE
 - Government Departments both State and Federal
 - Small business and hobbyists in the home
 - There is a RISO Screen Master System available to suit most applications
- RISO Screen Master caters to a wide variety of applications including:
 - Textiles, Signs, Posters
 - Plastics, Glass and Ceramic Printing
 - Glass Etching, Instrument Panels and Printed Circuit Boards
- RISO Screen Master will produce one thousand prints from a single screen and is available in rolls up to a maximum width of 600mm in standard or fine grade mesh. "Starter Kits" are available.
- Completely SAFE, DRY and NON-TOXIC.
 - No fumes. No odors. No chemicals
 - RISO Screen Master removes the 'tedium' from screen printing
- It also removes the need for:
 - Hand cutting stencils, tensioning and stapling screens, coating emulsions and curing time, camera equipment, processing artwork, darkrooms, chemicals and baths, special lighting, compressors, vacuum frames, pressurised water, large quantities of screen frames and working space.

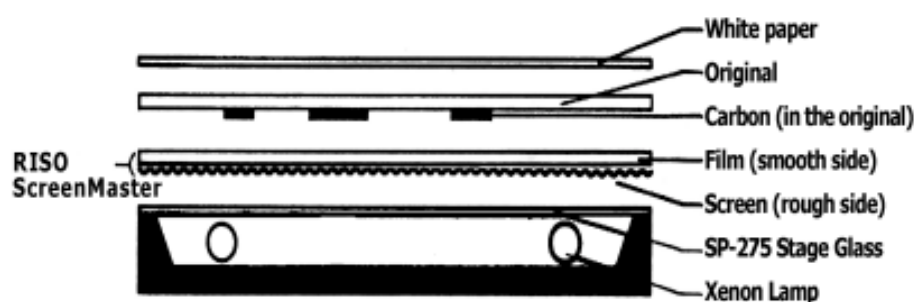


Imaging RISO ScreenMaster with SP-275

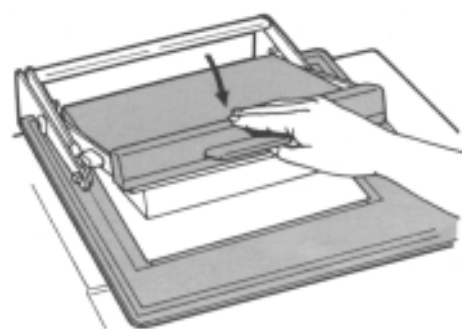
Making a screen with SP-275

The xenon lamp flash interacts with carbon in the original to create heat, imprinting the screen by opening minute holes in the film surface (on the screen's smooth side).

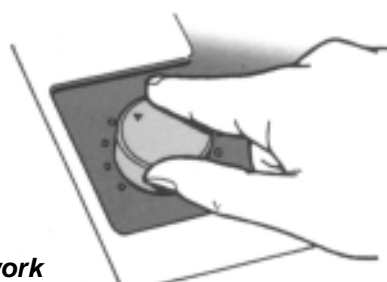
1. Prepare your RISO ScreenMaster for imaging, if required, by cutting to suite the size of the frame required
 - ~ The screen should cover all the taped area around the frame
2. Place face down over the SP-275 Stage Glass, in the order as pictured below



3. After placing into the machine, cover with a piece of plain white paper to mask the background



4. Lower the Lid of the machine



5. Set the sensitivity adjustment to the correct setting as determined by the artwork type you are using (previously outlined **Artwork Types and Preparation**)

➤ Remember each form of artwork contains a different level of carbon and will require a different setting. If you are unsure of the setting, perform a small test first to determine a suitable setting for your artwork.

- RISO Screen Master 135 mesh is sometimes a little difficult to tell by feel alone.
- Hold the mesh and inspect both sides. The Matt finish side of the Screen Master is the mesh side.

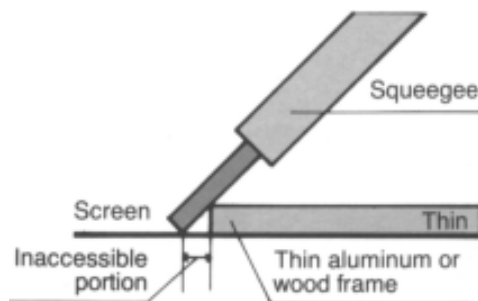
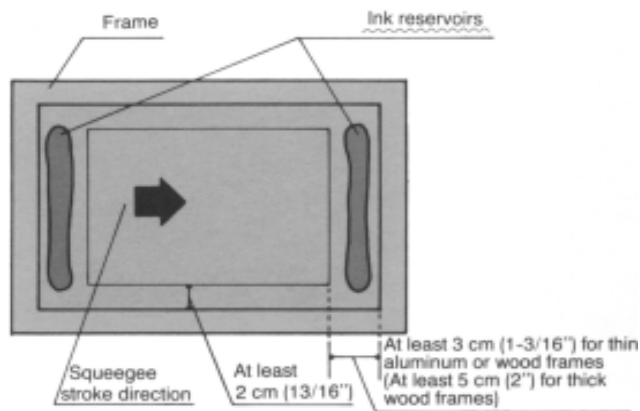
- If the covering pad is dirty, smudges and unwanted marks will be imprinted.
- Placing a white piece of paper over the original will prevent smudging and unwanted marks from being transmitted to the screen during imaging.

- On humid days, or when the original has thick letters or large blocks of shading, set the sensitivity a little higher than usual.

Framing the RISO ScreenMaster

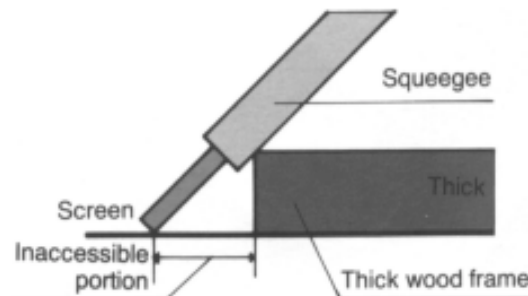
Positioning the ink reservoirs

When deciding the size of your frame, it is necessary to correctly position ink reservoirs (areas at the beginning and end of the squeegee stroke where ink will collect).



➤ When using thin frames (such as thin aluminium), allow at least 3 cm. (1-3/16") of space at the beginning and end of the squeegee stroke, and at least 2 cm. (13/16") leeway on either side.

➤ When using thick frames, allow at least 5 cm. (2") at the beginning and end of the squeegee stroke.



Framing procedures

1. Attach double sided tape to the inside of the frame. Be sure not to leave any uncovered spaces.

~ Plastic frames are available both pre-taped and untaped. Metal frames are all pre-taped.



➤ DO NOT use foam type double-sided tapes.

➤ Avoid any double-sided tape with an 'aggressive adhesive', as this will damage the screen should it have to be removed for repositioning during mounting, and also after use of the screen.

- The RISO Screen Master mesh can be attached to the frame either before or after screen making. The advantages to attaching the screen first are as follows:
- It is easier to align the screen during multi-colour prints.
- Attaching to the frame prevents curling of the Screen Master, so that making the screen is easier.

However, note the following:

- The frame should be no thicker than 5 mm. (1/4").
- When using a frame smaller than the screen making component's stage glass, the area within 1-2 cm. (7/16"-13/16") off the frame's edge will not be imprinted.
- Similarly, the print width should be approximately 25 mm. (1") less than the width of the squeegee.
- Refer to "Maximum Print Size Table" (in Helpful Hints) as these dimensions take the above factors into account.
- Print quality and screen life will be reduced if the printing area is too close to edges of the frame.

- RISO plastic frames are supplied pre-taped and un-taped.

- We advise the use of the product code N-190 for use when taping frame mounts. This tape has been researched and satisfies the requirements for adhesion **and** re-usability.