

## Risograph Print Guide

Risograph printing is a digital duplicator process that has a unique method compared to other printing processes. This does mean that setting up a job to print in Risograph is a tad more involved than hitting CTRL+P.

This print guide has been designed to help make preparing your artwork for Riso print more straightforward. Please read on and if you have any questions, get in touch by emailing [howdy@neighbourhoodpress.net](mailto:howdy@neighbourhoodpress.net)

## What is Risograph?

The Japanese made Risograph printer, initially created in the 1980s for speed and high-volume duplicating, have experienced a remarkable transformation in recent years.

Whilst they were widely used in schools and offices around the world, the machines also managed to find their way into the hands of artists and printmakers. Makers have been captivated by the savvy technology of the Risograph machine and its ability to combine and layer incredibly bright and vivid colours to make prints.

## But how does it work?

To create a print, the first step is to make a stencil. This stencil is then wrapped around a heavy cylindrical drum filled coloured ink. The drum spins at high speeds to push ink through the stencil. Paper is then fed into the printer and as it passes under the drum, ink is pressed onto the paper making a single colour print.

To add a second colour, the first ink drum is replaced with a different drum containing the second colour. A new stencil is made and the printed paper is fed back into the machine for the second layer of colour to be aligned and printed on top of the first. This process is repeated for each additional colour.



## What's Risograph good for?

Risograph is a unique form of printmaking and is most striking when printed media is designed specifically with Risograph in mind. The Risograph machine can accommodate up to A3 sized paper and is best suited for print runs between 50 - 2000 impressions. It works wonderfully to create art prints, posters, zines, greeting cards, postcards, invitations, envelopes, booklets, menus, flyers and much more.



## Print Area

Risograph machines can print up to A3 and cannot print edge-to-edge. The max printable area is 277 x 400mm and any A3 artwork must be supplied with a 10mm border. If your design is full bleed, please provide us with at least 3mm bleed and make sure that the crop marks fit within this max printable area.



# Ink Colours:

The Risograph has its own special colour system and we are lucky to have twelve inks. All Riso inks are semi transparent so by over printing colours and varying ink density you can achieve a wide range of colours. Because of this ability to overprint the inks, there is rarely need to print more than four colours.

Unlike other forms of printing there is no pantone references for the plant based inks we use. Below are digital references that are the closest digital representations of the inks but please note actual printed colour will vary.



**Black**  
RGB: 0, 0, 0  
HEX: #000000



**Violet**  
RGB: 157, 122, 210  
HEX: #9D7AD2



**Blue**  
RGB: 0, 120, 191  
HEX: #0078BF



**Light Teal**  
RGB: 0, 157, 165  
HEX: #009DA5



**Mint**  
RGB: 130, 216, 213  
HEX: #82D8D5



**Green**  
RGB: 0, 169, 92  
HEX: #00A95C



**Flat Gold**  
RGB: 187, 139, 65  
HEX: #BB8B41



**Bright Red**  
RGB: 241, 80, 96  
HEX: #F15060



**Fluoro Pink**  
RGB: 255, 72, 176  
HEX: #FF48B0



**Fluoro Orange**  
RGB: 255, 116, 119  
HEX: #FF7477



**Orange**  
RGB: 255, 108, 47  
HEX: #FF6C2F



**Yellow**  
RGB: 255, 232, 0  
HEX: #FFE800

## Paper:

Risograph inks require to be printed onto uncoated paper in order to be absorbed and allowed to dry. We have tried and tested a wide range of uncoated papers and have found that our printer works best with EcoStar+ 100% Recycled.

EcoStar+ is an environmentally responsible bright white paper made carbon neutral and is FSC Recycled certified. EcoStar+ is manufactured from 100% post consumer recycled fibre in a process chlorine free environment under the ISO 14001 environmental management system.

## Finishing Services:

For print orders that will require finishing, the following finishing services are available in house:

- Trimming
- Scoring
- Collating
- Spiral & comb binding
- Saddle stitch binding (staples)
- Corner cutting

For all other finishing services, we can arrange for your order to be finished out of house by the finishing house we regularly use here in Perth, Western Australia.

We currently carry Ecostar+ in the following weights; 100gsm, 135gsm and 250gsm. If you have a specific uncoated paper stock in mind, we would be happy to order in paper to suit your project (minimum order requirements apply).

Our other frequently used uncoated paper stocks include:

- Envirocare 100% Recycled
- Mohawk Superfine - Smooth
- Colorplan



## Print quirks & what to avoid:

Our Risograph printers Ziggy and Katsumoto are RP3700 single drum machines that print colours one at a time. To print artworks with multiple colours, the artwork must be run through the machine multiple times. There are a few things to keep in mind when setting up your artwork to reduce the following common Riso printing quirks.

### Roller & Print Marks:

When printing successive layers or on the reverse side of a print, avoid heavy ink coverage, particularly at the top 5-10cm of the artwork. The Risograph feeds paper using a set of rubber tires that travel across the center of the sheet. When feeding paper that has already been printed this can often result in track marks on the lead edge of the sheet and down the centre of the work, especially if the ink coverage is heavy.

### Smudging:

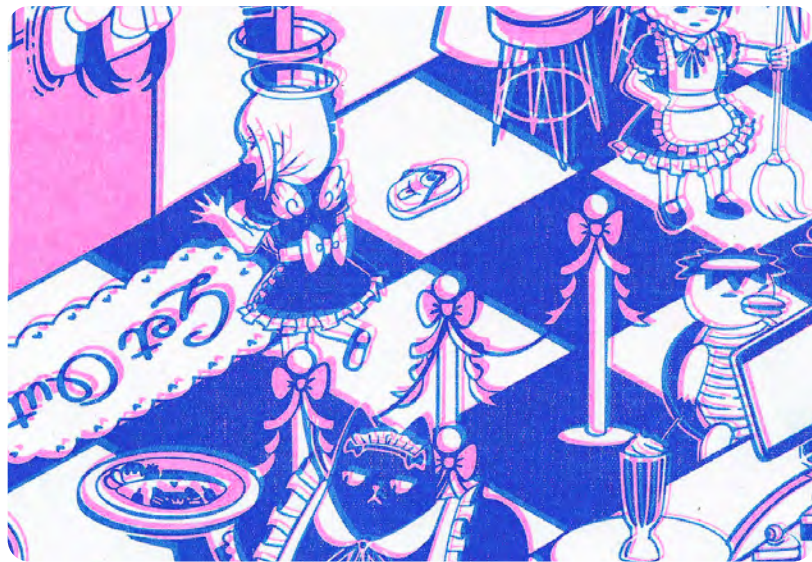
Risograph ink is made from a combination of rice bran oil, water and pigment and require to be printed onto uncoated paper to be absorbed. Risograph prints will always retain a newspaper like quality and with enough effort you will find that the ink can smudge and rub off onto your finger tips.



## Registration & Trapping:

When printing multiple colour prints misregistration is inevitable and can vary from print to print. To get the best results when printing more than one colour, it is important to include trapping. Trapping is the process of adding overlap between colours that interact in order to avoid gaps or white spaces in case of misregistration.

We don't recommend designs where alignment is crucial such as very small details or double layers of text, as they won't look clear when the layers print out of alignment with each other.



## Ink Coverage:

The Risograph makes an impression using a rubber roller which presses the sheet of paper against the print drum as it spins. This is not a perfect process and the heavier the use of ink on your prints, the greater the risk of imperfections in the final work. Large areas of high density ink will cause print jams, will not print evenly and will cause a higher chance of misregistration. If large areas of block colour are unavoidable then we ask that the ink density be below 70%.

If your artwork is double sided, ensure that ink coverage is kept to a minimum, as dense ink areas can transfer onto the reverse side of the print.



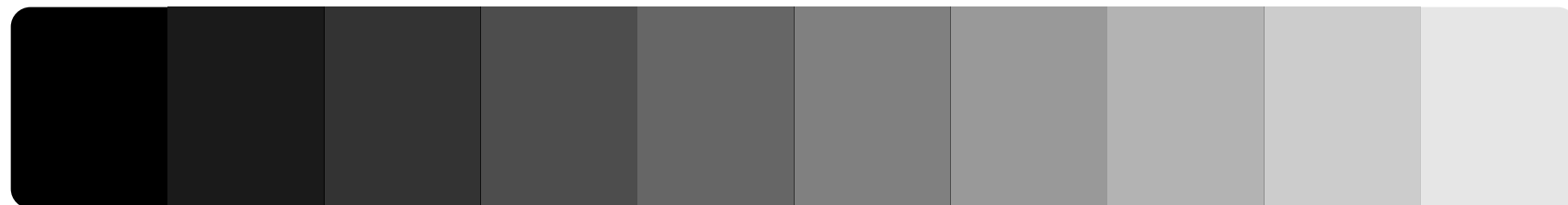
# Preparing your files for print:

Set-up for printing in Risograph is different from your standard digital printer. Our Risograph machine prints one colour at a time, reading a grayscale image and printing it in colour. When preparing your print ready files, each colour you wish to print must be set-up as separate grayscale layers and submitted as separate PDF files.

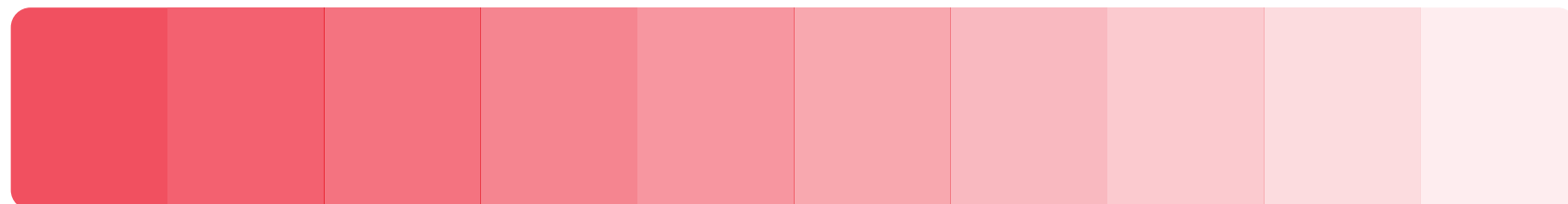
The best way to do this is to design specifically for Riso, thinking of the colours in your work as separate layers. However if you need to separate an existing work that is full colour, you can do this by using the colour channels in Photoshop. Alternatively there are a few online resources such as [Spectrolite App](#), [Color Library](#) and [Color/Shift](#) that can help separate your print files.

If you are converting your file from colour to grayscale, please note that the grayscale values will need to be adjusted to ensure your artwork will print as intended, see the example below.

## Grayscale Artwork:



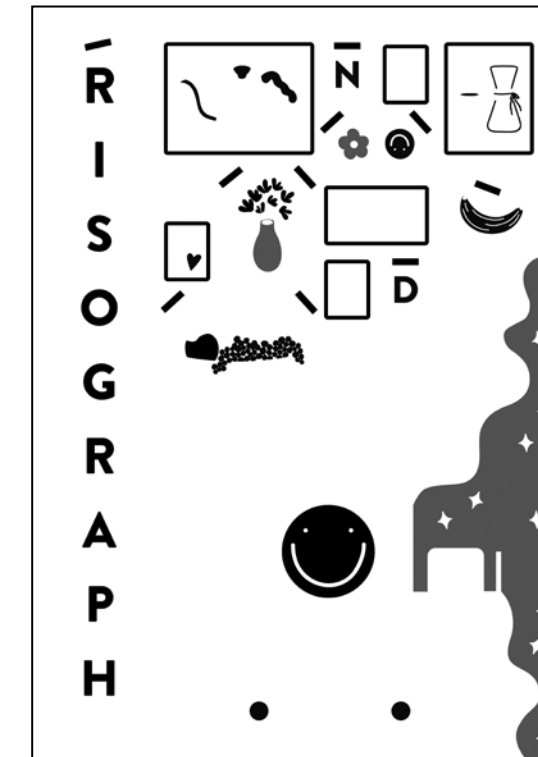
## Bright Red Risograph Print:



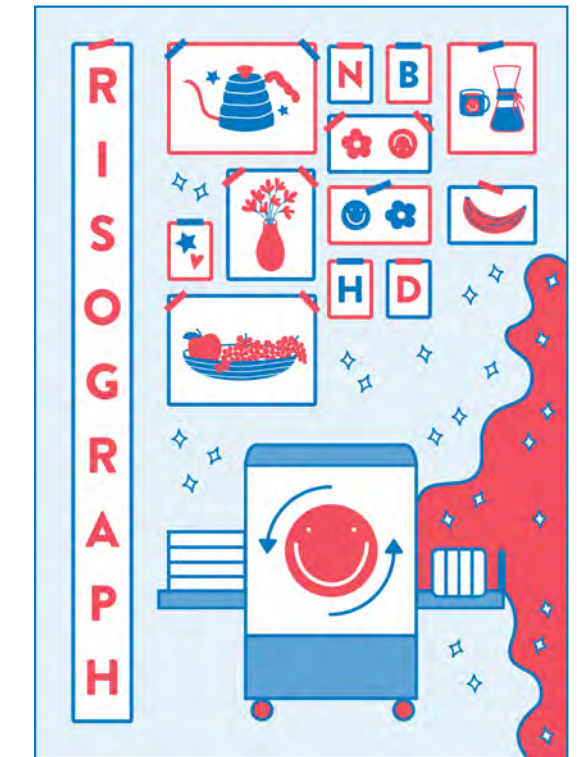
When naming your files for print please include your full name and the colour you'd like your work printed in. For multiples, double sided prints and books, include sequencing numbers too. When submitting print ready files, please also include a full colour JPEG or PDF of your artwork as a reference.



Full Name\_Colour 1-BLUE.pdf



Full Name\_Colour 2-BRIGHT RED.pdf



Full Name\_Full Colour Reference.pdf

## Submission Requirements:

1. Each colour is set-up as separate grayscale layers
2. Submitted as separate PDF files
3. JPEG or PDF of your artwork as a reference
4. Resolution: 300dpi
5. Files named and colours labeled clearly
6. Finish size is no larger than A3
7. Crop & 3mm bleed within printable area (if required)



## Risograph Print Disclaimer:

Risograph printing is not precise like other digital printing methods. Inconsistencies are an inherent part of the printing process and these quirks are a big part of the appeal of Riso.

Please keep in mind that your prints will look different in real life from what you've created on screen. There will be slight variations from print to print, especially when printing multiple colours and sides. These include but are not limited to; printers marks, misregistration, skewing and variations in ink coverage.

Risograph is an experimental method of printing and works best when you embrace the quirks that come with it. If you are after a more precise replication of your digital files, we would suggest that digital printing may be more appropriate for your project.

## Turnaround Times:

Turnaround times for projects generally depend on your project specifications. Generally speaking it is best to allow at least two working weeks for all print orders. We work on a first come, first serve basis and will let you know if our bookings are at capacity.

If for any reason we are unavailable to take on your print order, we recommend you get in touch with one of our Australian based Risograph printing pals: [Helio Press](#) and [Glom Press](#) in Melbourne, [Pinch Press](#) and [The Rizzeria](#) in Sydney and [Sunshine Press](#) on the Sunshine Coast.

## Questions & Pricing:

Every project that comes through our press is different from the last, meaning we quote for each job based on its unique requirements. For all pricing enquiries please take a moment to fill out our [quote request form](#).

If you have a question or would like to discuss your next Risograph print project, please get in touch by emailing [howdy@neighbourhoodpress.net](mailto:howdy@neighbourhoodpress.net)

For more information about Neighbourhood Press, the products we make and our process, visit our website or find us on socials: [www.neighbourhoodpress.net](http://www.neighbourhoodpress.net) | @neighbourhoodpress

