

**PURCINELLA  
PRESS**

**Best  
practices  
for how to  
RISOGRAPH  
PRINT.**



Risograph print + design services  
[www.purcinellapress.com](http://www.purcinellapress.com)  
[info@purcinellapress.com](mailto:info@purcinellapress.com)

# CONTENTS

ABOUT PURCINELLA PRESS

WHAT IS RISOPRINTING?

HOW DOES IT WORK?

WHAT CAN YOU PRINT WITH RISO?

WHY SHOULD YOU CHOOSE RISO?

INKS/COLOURS

OVERLAY

PAPERS

PREPARING FILES + GLITCHES

FLATTENING FILES

COMMON PROBLEMS

RISO IMPERFECTIONS

INK COVERAGE

GRADIENTS

TEXT/TYPE

OPACITIES

GRAIN-TOUCH VS SCREEN-COVERED

A3 LAYOUT

CROP MARKS

LAYOUT OPTIONS

NAMING FILES

HOW TO PREP TO PRINT

FAUX CMYK EFFECT

GENERAL PREP TIPS

EXTRA SERVICES

TURN AROUND

AMENDMENTS

COMMON PROBLEMS

TERMS + CONDITIONS

PRINT DISCLAIMER

OTHER RESOURCES

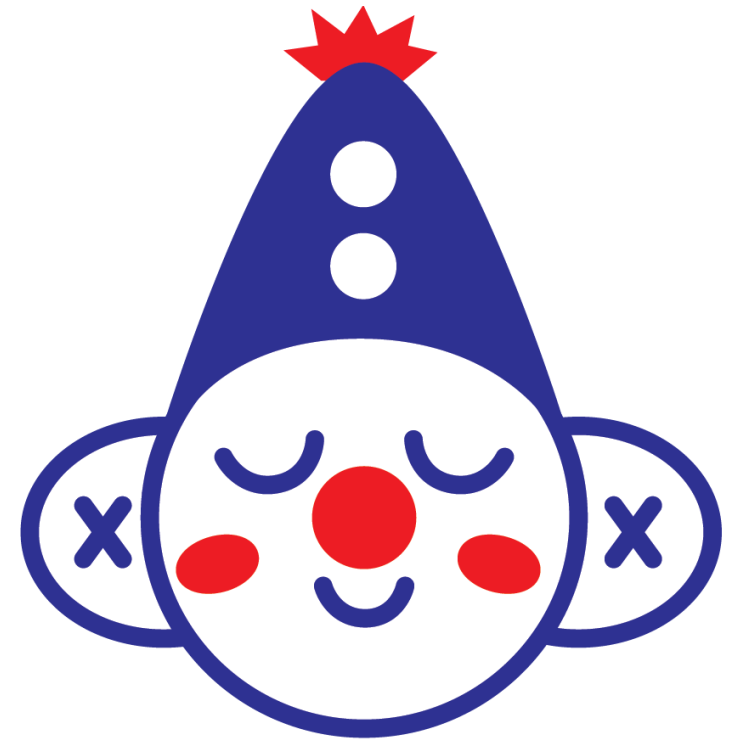
# ABOUT PURČINELLA PRESS

Purčinella Press is based in Mosta, Malta and is run by Michelle Gruppetta.

Michelle is a full-time multi-disciplinary creative, whose work spans from printmaking to 3D animation.

Purčinella Press designs and produces vibrant risograph prints for a range of clients, from NGOs, artists, brands and other organizations.

Purčinella Press offers custom services with a strong focus on design.



**PURČINELLA  
PRESS**

# WHAT IS RISOGRAPH PRINTING?



*FUN FACT:  
Risograph printing  
was developed in Japan  
in the 1980s!*

Risograph (or just riso) printing is a fun, eco-friendly print process that combines layering vibrant spot colour ink with photocopier speed, to create beautiful, analogue imperfection.

Risograph printing isn't about perfection- the prints have a unique character that stand apart from digital printing. The idiosyncratic process transforms the work into something truly special, which is what sets this printing method apart.

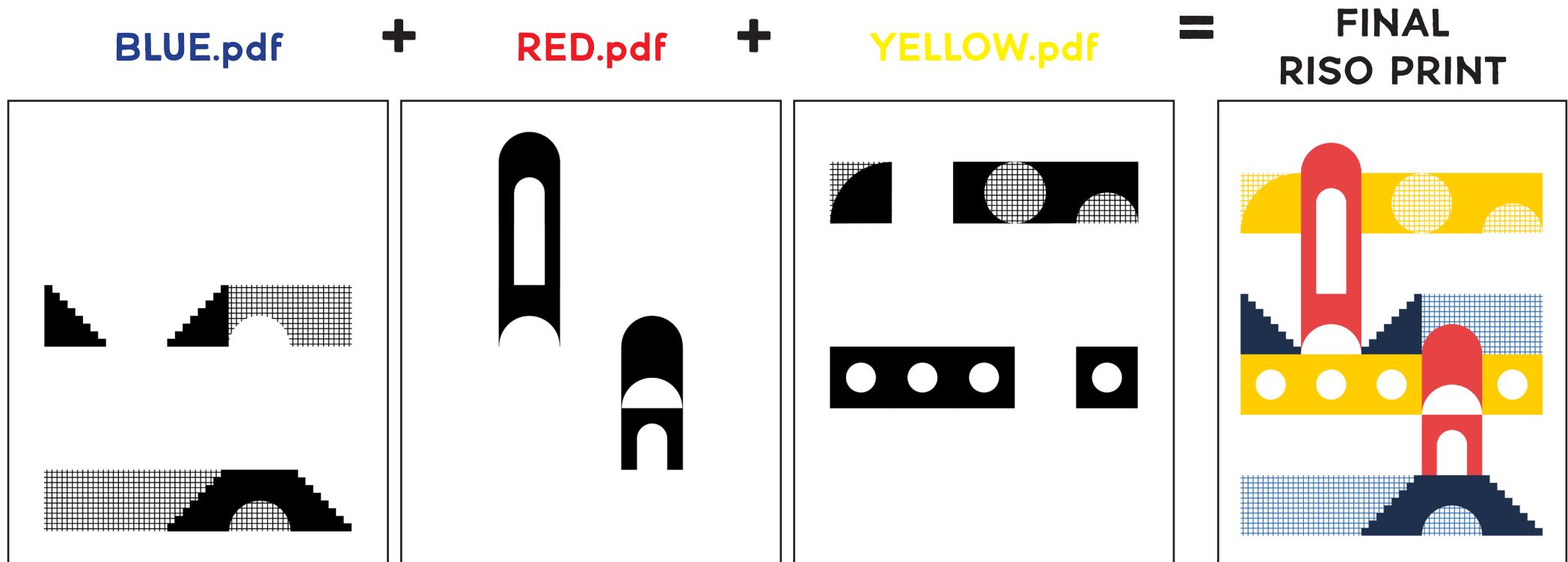
# HOW DOES IT WORK?

RISO turns your greyscale artwork into bright, colourful risograph prints.

The darker the artwork, the more ink is printed. Black prints solid, white stays white, and lighter areas appear as pale tones.

100% Black = 100% Printed Colour.  
50% Black = 50% Printed Colour.

Each ink colour is printed separately. A three-colour print in blue, red and yellow requires 3 greyscale PDFs - one file with all the blue artwork, one with all the red, and one with all the yellow artwork. You can use any number of inks/colours we have in stock to create your artwork.



# HOW DOES IT WORK? - CONT.

Artwork is sent to the risoprinter either by scanning it directly or via a computer connection.

The artwork is then burned into a sheet of thermal-sensitive paper by the printer, also known as a master.

This stencil is then wrapped around the ink drum, and ink is pushed out of the drum, through the stencil and onto the paper.

Each colour is printed using a separate drum, with inks overlapping to build up the artwork.

That means that if you have an artwork that uses more than one colour, the same sheet of paper gets fed through the machine again and again.

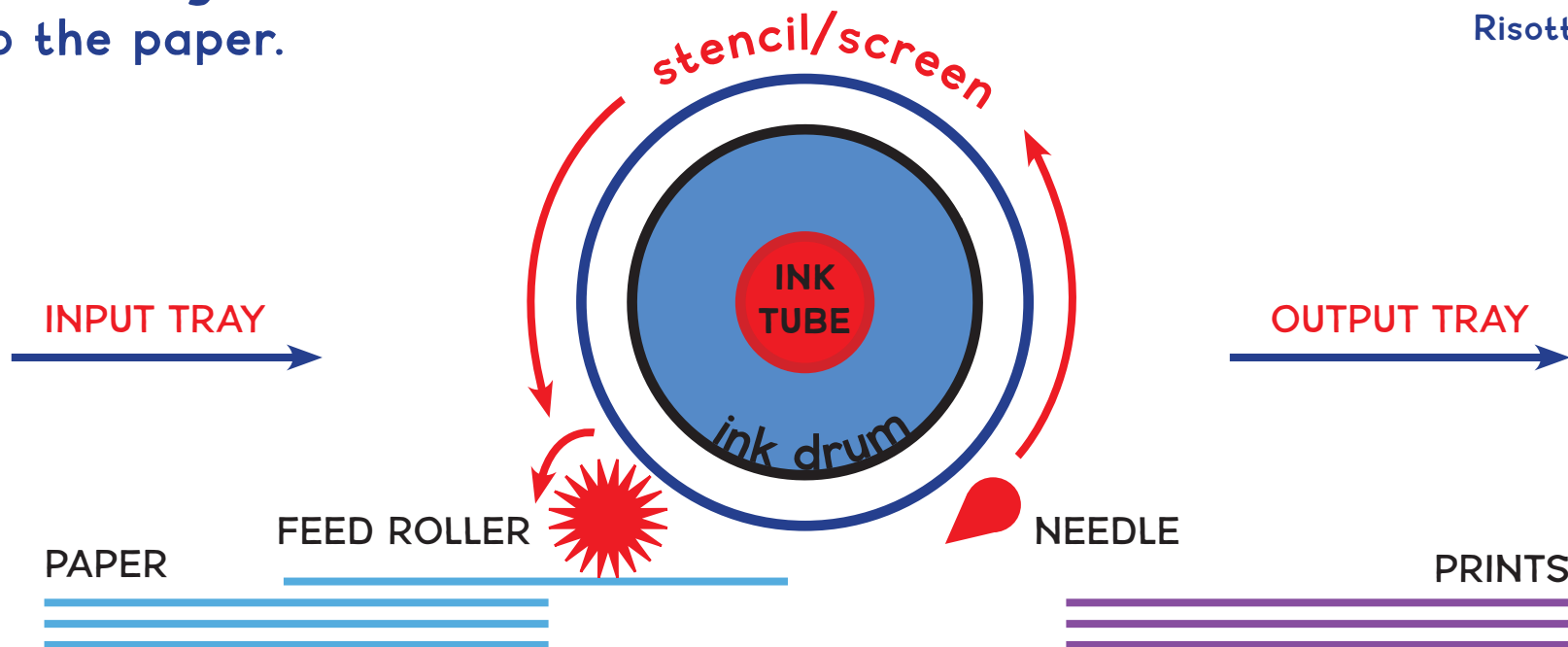


Diagram by  
Risotto Studio.

# WHAT CAN YOU PRINT WITH RISO?

The riso printer prints a max size of A3 - so regardless of your project, everything is laid out on an A3 template.

However, it can print A2 or even A1 if that final result is folded, such as a newspaper.

It only prints on paper!

You can also print full colour artworks and photos using a faux CMYK method!

**MAX PRINTABLE AREA ON AN A3 IS 287mm x 410mm.**



## *YOU CAN PRINT:*

ZINES  
ART PRINTS  
POSTERS  
FLYERS  
BUSINESS CARDS  
MENUS + PLACEMATS  
PROGRAMS + MAPS  
PAPER BAGS + ENVELOPES  
SMALL PUBLICATIONS  
CARDS  
PHOTOS  
NEWSPAPERS

# WHY SHOULD YOU CHOOSE RISO?

## *RISOGRAPH PRINTING IS:*



### **Efficient and affordable!**

Has the speed, low-cost and efficiency of a modern photocopier.



### **Eco-friendly!**

Riso printing uses a cold printing technology, is highly energy efficient and sustainable printing method, unmatched by other printing techniques. It also uses soy-based inks, and uses no water or alcohol in its process.



### **Unique!**

Combines the best of digital and traditional printing with vibrant colours and beautiful texture to achieve a gorgeous hand-made feel!



*MAN, I'M  
THE BEST*

# WHY SHOULD YOU CHOOSE RISO?

## - CONT

### *IT'S ECO-FRIENDLY:*

At Purcinella Press, we do our best to minimize our impact on the environment. We source sustainable FSC certified paper, and reuse as much as we possibly can, using the paper for test prints and misprints over and over. We recycle everything else.

Riso printing itself is a more sustainable printing method. It is a cold printing method and highly energy efficient, making ethical, mindful products, which can't be matched by other printing methods. It uses minimal energy and no water at all.

The riso inks themselves are soy based, and the stencil is ready to be used right from the start, minimizing ink waste.

### *IT'S AFFORDABLE:*

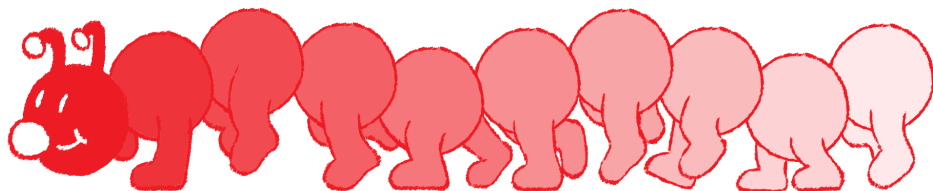
The risograph printer is especially designed for fast, high-volume output. It is very efficient, so once the artwork is set up, the more you print the cheaper each print gets.

Our pricing and quotes are calculated by the number of stencils used, the types of inks (as some are more expensive than others) and the quantity and type of paper.

The most economical jobs are the ones that use few colours and stencils, but have a higher print quantity. The more expensive jobs involve more colours and stencils at a low print quantity.

Since the requirements of all print jobs vary, we have no set price list and quote based on the job.

Printing services are also only charged at 5% VAT.

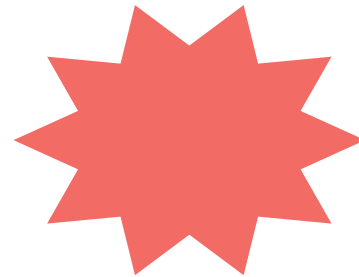


# INKS/COLOURS

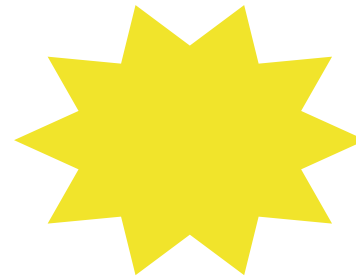
Riso inks are soy-based and slightly translucent, meaning you can overlap just a few colours to create a wide range of new colours!

Riso inks are like newsprint—they never fully 100% dry (but they get pretty close!)

The inks are unique to riso printing. The colours produced cannot be fully replicated digitally. The hex codes provided here are digital approximations.



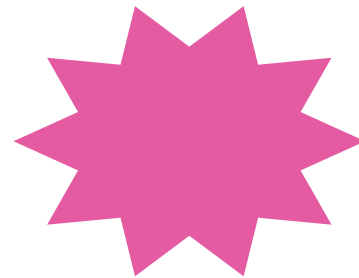
*RED*  
*#FF665E*  
*286 U*



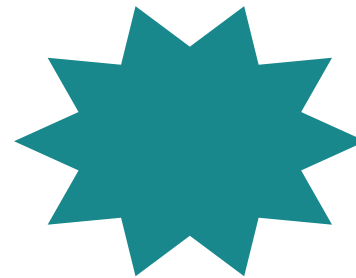
*YELLOW*  
*#FFE800*  
*Black U*



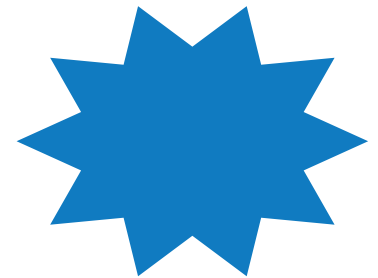
*ORANGE*  
*#FF6C2F*  
*021 U*



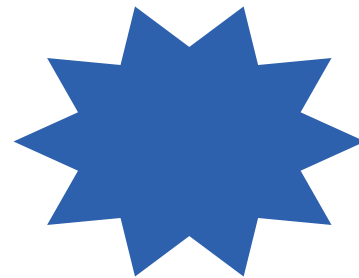
*FLUORO PINK*  
*#FF48B0*  
*806 U*



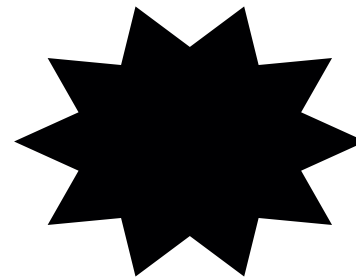
*TEAL*  
*#00838A*  
*321 U*



*BLUE*  
*#0078BF*  
*3005 U*



*MEDIUM BLUE*  
*#3255A4*  
*286 U*



*BLACK*  
*#000000*  
*Black U*



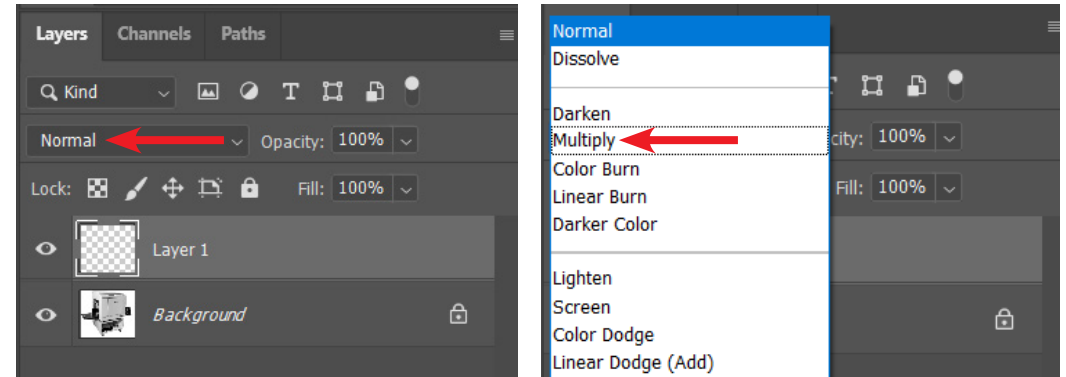
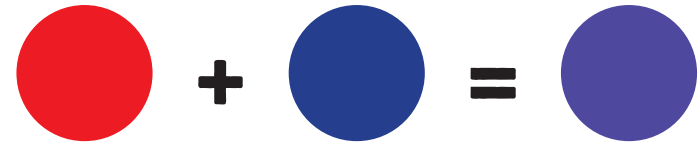
To see exactly what the inks look like, please purchase a printed swatch pack online before ordering prints.

# OVERLAY

Riso inks are slightly translucent, which makes them great for overlaying on top of each other. Many more colours can be achieved this way.

We stock 8 inks that can either be used as spot inks, or overprinted to create new hues. You can choose to overlay colours, or knock out anything behind them to print directly on the paper.

You can also print onto coloured paper! Ink colours will change depending on what paper they're printed on!

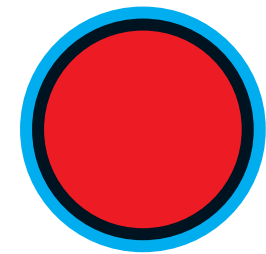
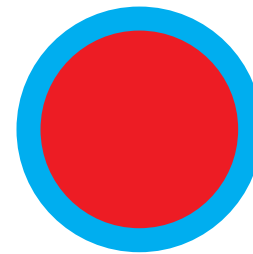


Switch your layers to "Multiply" in the blend effects options when designing in Adobe to see an approximate of how it will print.

Adding trapping helps minimize any white gaps from the print misregistering.

NO TRAPPING

TRAPPING



Making sure the edges overlap will ensure a full colour fill/no white gaps.

# PAPERS

Riso works best on rough uncoated papers between 80gsm-280gsm.

It is possible to print on 60gsm-300gsm depending on the paper, which would need testing. This is due to the paper at these more extreme grammages jamming in the printer or sticking to the stencil. It is preferable to use them for shorter runs.

All paper that we print on is FSC certified and we either source it ourselves or from Arrowswift, a local paper supplier.

Please get in touch if you'd like a specific paper/colour or to make an appointment at the studio to see our paper samples in person.

We cannot risograph print on black or dark papers.

The more notice ahead of time you give us for a print project, the more we can ensure that your paper choice is in stock.



## OUR PAPERS:

FABRIANO COLORE 80GSM - IVORY

ARALDA 100GSM - IVORY

FEDRIGONI ROUGH ARENA 120GSM - NATURAL

PRISMA 120GSM - WHITE

CLAR 120GSM - LIGHT BLUE

DIGITAL PRA 135GSM - WHITE

FABRIANO 160GSM - COLOURED LINE

MIXED MEDIA PAPER 180GSM- NATURAL

PRISMA 220GSM - COLOURED LINE

PRISMA 220GSM - IVORY

BRISTOL 4C 250GSM - CREAM

GR TEXTURED BOARD 250GSM - BRIGHT WHITE

GR TEXTURED BOARD 250GSM - BRIGHT WHITE

KRAFT 280GSM - BROWN

DIGITAL BF(DT) 300GSM - NATURAL

PRISMA 300GSM- WHITE

80gsm-120gsm is suitable for leaflets, flyers and zines.

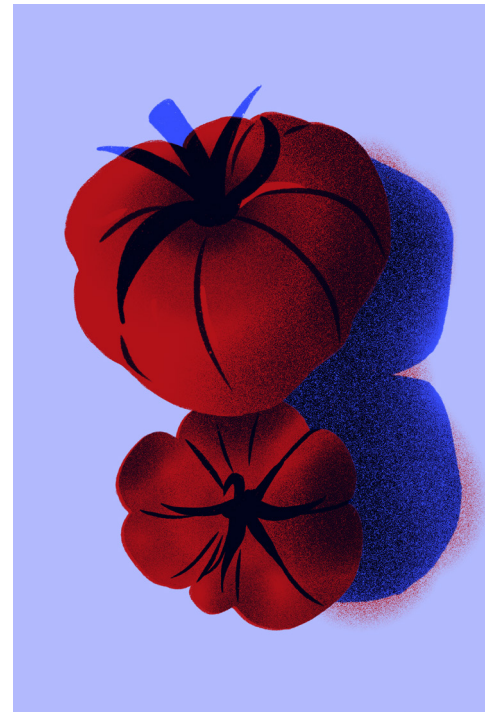
120gsm-250gsm is suitable for book covers and posters.

# PREPARING FILES + GLITCHES

## FOR PRINT, FILES NEED TO BE:

- 300dpi.
- Set to greyscale/B&W.
- Flattened PDFs (no layers or transparencies).
- Each colour layer saved as a separate file.
- Max printable area is 410x287mm.
- The riso cannot print full bleed A3 artwork, so please leave a 10mm border. Document size needs to be 420x297mm.
- Label your files clearly, eg. artworkname\_inkcolour.pdf
- Your image must be laid out on an A3 sheet.

Original digital file



Artwork by Antonia Gatt.

Riso print  
with glitches



glitch

If your file contains blend layers or effects such as drop shadows, the riso will wrongly interpret these effects and print visible boxes on your artwork. **These elements need to be rasterised and flattened before print.**

# FLATTENING YOUR FILES

Depending on your digital workflow, your PDFs might contain transparencies/blend layers/effects that won't show in the exported pdf, but will show in the riso prints. The riso print won't match the on-screen art, resulting in unwanted artefacts and visible corruptions.

This is why it's important to rasterise and flatten images before exporting as PDFs.

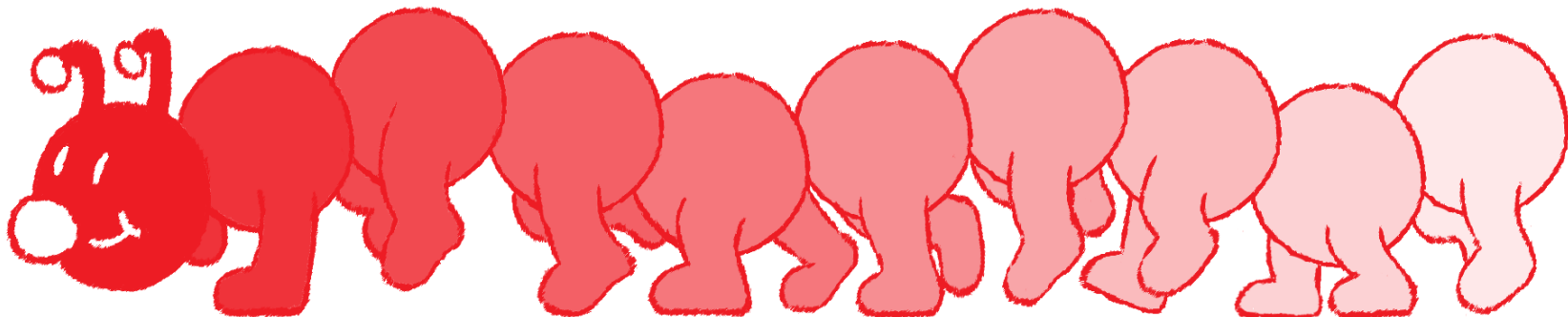
Flattening layers discards any "invisible" layer content that isn't visible on-screen.

Always make sure to save a copy of your work, as merging and flattening can't be undone!

***IMPORTANT!***

***YOU SHOULD ONLY MERGE,  
FLATTEN AND RASTERIZE YOUR  
FILES USING ADOBE SOFTWARE!***

***SADLY, THE RISO PRINTER  
ISN'T COMPATIBLE WITH OTHER  
SOFTWARE FOR THIS!***

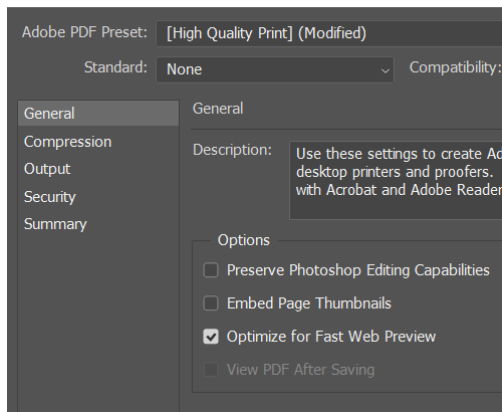


# FLATTENING YOUR FILES - CONT.

## USING ILLUSTRATOR:

- Hide/de-select elements that can remain as vectors.
- Select only the elements that are effected, to be rasterised and flattened.
- In the "Object" menu, select "Flatten Transparency."
- In the pop up menu, set the custom preset to match the below:

Save Adobe PDF



- In the "Object" menu, select "Rasterize" and set it to greyscale and 300dpi.

## USING ADOBE ACROBAT 7, 8 OR LATER:

- Open your file, and select "Advanced > PDF Optimizer."
- Select the "Clean Up" tab. If you get a prompt to save, select "Yes."

If prompted, select "Discard User

- Data," "Discard Hidden Layer Content, + Flatten Visible Layers," and select "OK."

- When prompted, save the PDF as a new version/name.

- Go to "View" > "Navigation Panels" > "Layers."

- Select the "Options" menu and select "Merge Layers" or "Flatten Layers."

- Save the PDF file.

# FLATTENING YOUR FILES - CONT.

## *USING PHOTOSHOP:*

- Go to the "Layer" menu and select "Flatten Image."
- Go to "Image"> "Mode" and set it to "Greyscale."
- Export and save each layer as a PDF.

## *USING PROCREATE:*

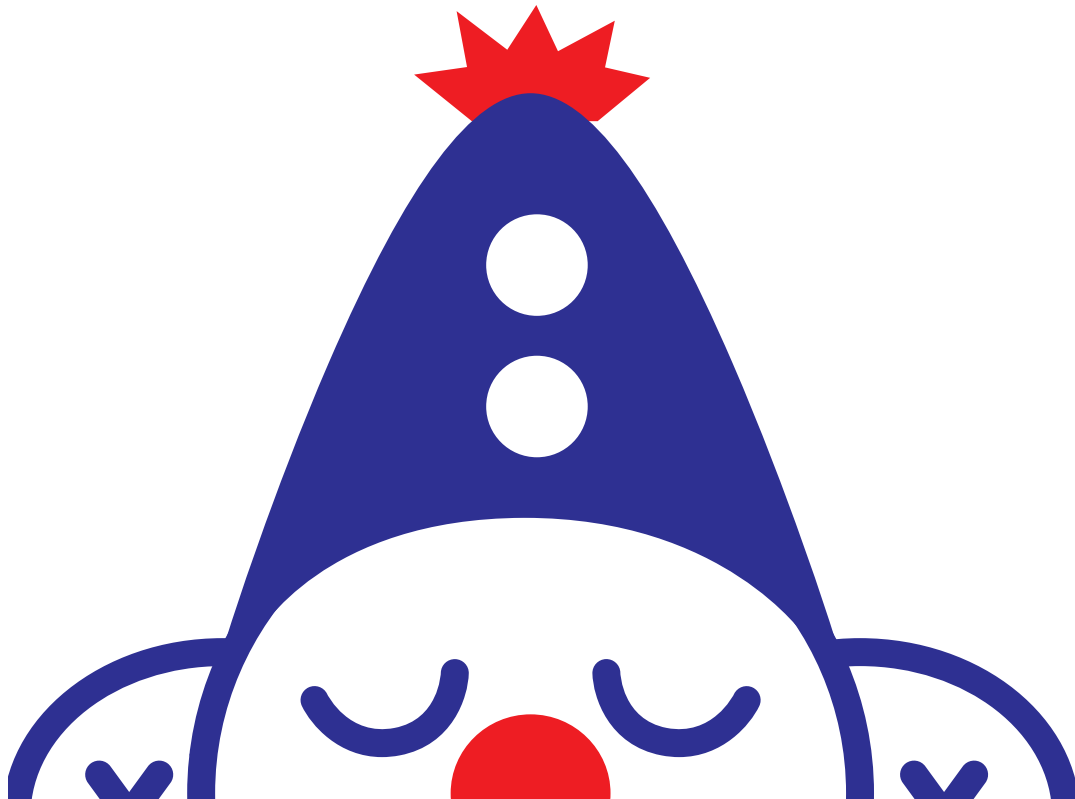
Many use Procreate for their artwork and we are happy to help get your Procreate files print ready.

Simply export your Procreate file as a .PSD file for us.

Important: Please be sure to consolidate and organize your layers so that you have one individual layer for each ink color you plan to print with.

**Generally we do not charge a file set up fee for well organized files.**

Files with disorganized layers, multiple colors on one layer, or flattened artwork will require an additional file set up fee. We are happy to take a look and provide an estimate for the time it will take us to get your file ready for print.

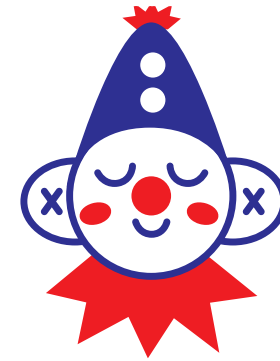


# "CLEANING" YOUR FILES.

If your artwork has been scanned or used textures, the riso printer may interpret these differently from what you see on screen, and print them more visibly. Zooming in might help you spot some of these problems before you send them to print. Playing with the contrast or using the eraser tool can help remove these issues.

Spotting and fixing these issues in advance is your responsibility, as we won't know if those textures are there intentionally or not.

During our free file check before printing, we will flag if we come across any issues that we spot, however some things are impossible for us to know whether they're deliberate or a mistake.



We are not responsible for the artwork that you send, but we will check them to the best of our ability.

## ***IMPORTANT!***

***WE OFFER FILE PREP SERVICES  
STARTING AT 20 EUROS/HOUR.***

***A SINGLE ART PRINT ON  
AVERAGE SHOULD NOT TAKE  
LONGER THAN AN HOUR.***

***ZINES ARE A DIFFERENT MATTER.***

# RISO IMPERFECTIONS.

Risograph printing is known and loved for its imperfections. Do not expect perfect prints when risograph printing. These imperfections are totally part of the charm and look of risograph printing, and a big part of why they feel “handmade.”

**Risograph printing isn't perfect like a digital printer. The imperfections are intrinsic to this machine and its output.**

**Although some of these issues can be minimized, it is always best to expect them going in!**



## INK TRANSFER

Heavy ink can lead to transfer between prints as the prints are stacked on top of each other as they exit the printer. Riso ink is also very similar to newspaper ink, meaning it never fully dries and can smudge if handled a lot. This can be avoided by not using large areas of solid colours and **using our blotting services.**



## ROLLER MARKS

Paper feeder rollers may leave marks on the page when a paper is run through the Riso multiple times and has heavy ink. This can be avoided by printing heavy inks last, and let them dry overnight. Print marks may also appear, but these can be easily rubbed off with an eraser if they are in a white area.

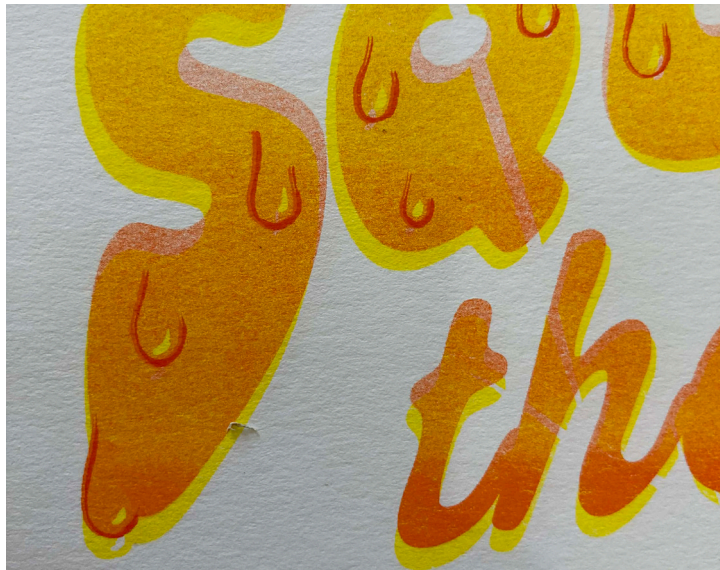


# RISO IMPERFECTIONS - CONT.



## MISREGISTRATION

With Riso each ink colour is layered on separately, meaning registration will never be 100% accurate. That means a single sheet of paper will run through the machine multiple times for projects printing more than 2 layers, and the registration of colour can be irregular. In your artwork, allow 2-3mm for shifting or use trapping to help.



## SMUDGING

Riso ink is made of soy oil, water and pigment, so like newspaper ink, smudging is a high possibility. Also, as Riso ink can smudge or rub off, it is preferable to avoid large block areas of color. There are ways on how to make a project more smudge resistant.

The cleanest prints are those which are one-colour, have light coverage and printed on thick paper.



# INK COVERAGE.

It is recommended to avoid heavy areas of ink coverage, as it will cause the ink to flood and the paper to stick to the drum. This can cause a paper jam that would damage the paper.

Heavy ink can also cause ink transfer, smudging, needle marks (which looks like a scratch down the middle of the print) and uneven coverage.

Large areas of ink set between 90-100% opacity can result in a visibly uneven application of ink due to the ink flooding across the stencil. It can also cause problems around the edges, and top and bottom of the stencil. It's best to keep at least 5cm clear at one end.

It is recommended that large areas of ink are no more than 75%. The risograph can't print 100% ink across the entire paper.



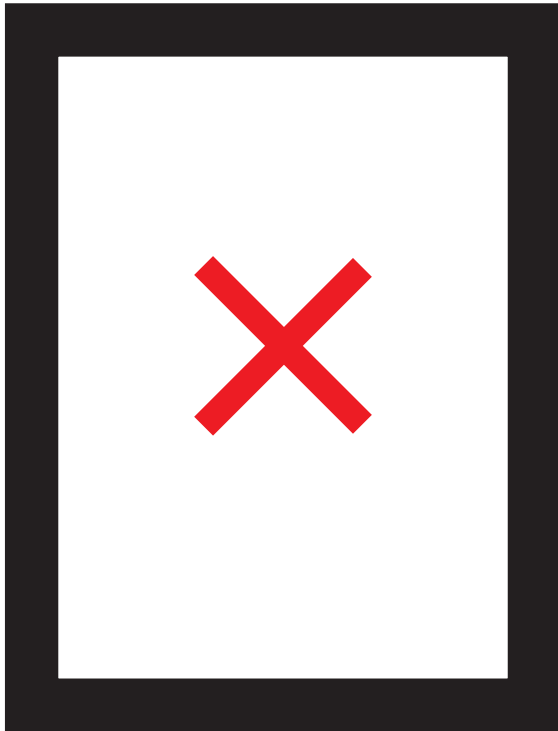
Artwork by Fleur Sciortino.



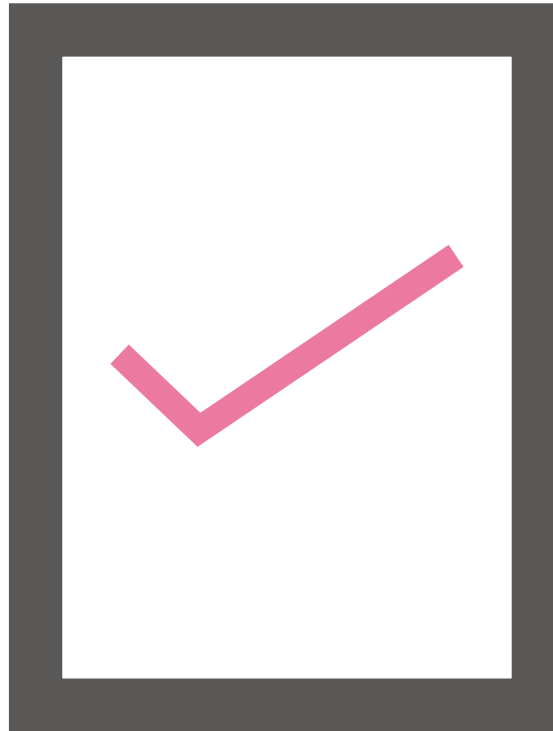
Artwork by  
Pocket Sandwich Studio.

# INK COVERAGE - CONT.

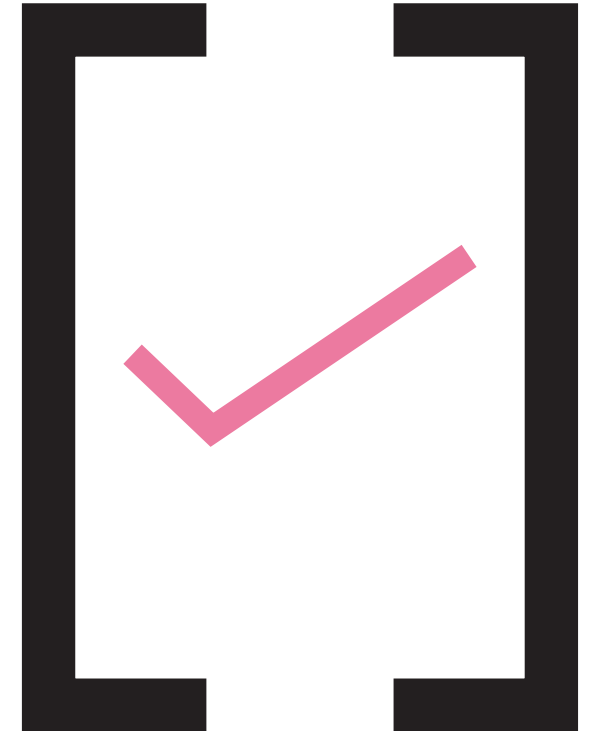
Heavy borders around the edge could also cause issues, and most likely won't work and will most likely cause the paper to stick to the drum. It's best to leave a gap at both ends the border, or set it to 75%.



Full border, 100% ink



Full border, 75% ink



Partial border, 100% ink

# INK COVERAGE - CONT.

## TO ENSURE A CLEANER PRINT:

- Print using 50% coverage across the entire page.
- Avoid large areas of ink, especially at the paper feed area (top of the print.)
- Limit the number of colours (aka passes made through the printer.)
- Reduce large areas of solid ink to a 70-85% tint.
- Print on thicker paper.
- Ask to have your prints blotted. Prints stack on top of each other as they exit the printer. If there's a lot of ink, they can smudge the back of the print on top. **This can be especially problematic with 2-sided prints. You can request that we intersperse the prints with blotting paper at an additional cost.**

PRINTING?

a fun, eco-  
friendly  
copier speed,  
perfection.

WHAT IS RISOG

Risograph (or just  
friendly print proc  
vibrant spot colour  
to create beautiful

**ALTERNATIVELY, YOU CAN  
ALSO PRINT YOUR IMAGE  
IN ONE COLOUR ONTO  
COLOURED PAPER!**

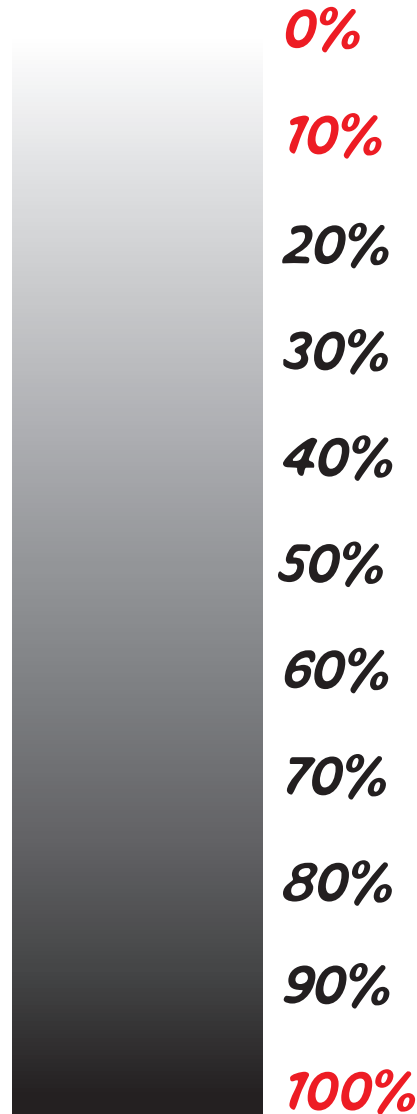
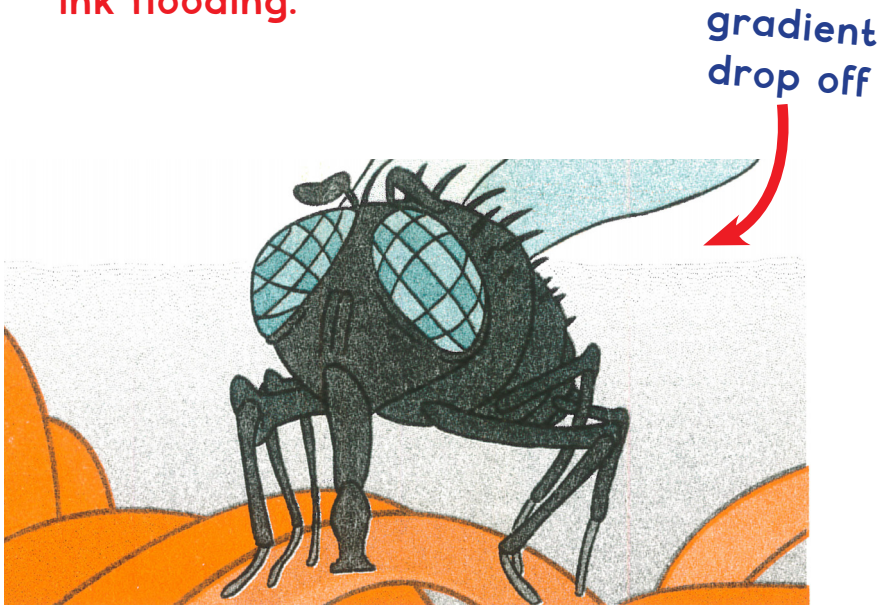
# GRADIENTS.

Gradients in Riso can be quite tricky. The printer doesn't interpret the 0-20% transition well, and will often just cut off.

For art prints, it's often best if the lightest part of your gradient is set to 20%.

For photos, it's often best if the lightest part of your gradient is set to 10%.

**Avoid setting the darkest part of the gradient beyond 90%, as it will cause ink flooding.**



## *TO ENSURE A BETTER GRADIENT:*

Add 3 to 5% noise to raster gradient to create an even gradient instead of 'stripes'.

Flatten the gradients.

Save your files a TIFF > and especially if you will then use InDesign to export into a PDF!

When exporting to PDF, select the option PDF/X1a:2001 instead of High Quality.

Extra: In the riso driver, you can turn off the "backlight correction" option. You can find this under the tab Image > next to the Grain Touch/Screen Covered options > as an advanced button.

*Credits for these solutions goes to Riso Pop.*

# TEXT AND TYPE.

We recommend that you use InDesign or Illustrator to create text. We don't recommend that you create type in Photoshop, as it rasterizes it and causes the edges to become rough, instead of clean.

For text below 14pt, we recommend that you use registration black and in vector form, even if you're not printing in black ink. This helps the RISO print text more sharply. Text can be set at a tint however that requires it to be rasterized which can cause it to be less crisp.

## FOR KNOCK-OUT TEXT:

Do not set type below 8pt.

Be careful not to use too much ink density, as it can fill in the empty, knocked-out text.

Too little ink can result in choppy edges.

We recommend no less than 60% ink coverage for knock out text, and ideally not more than 80%.

## KNOCK-OUT TEXT

100% ink coverage.

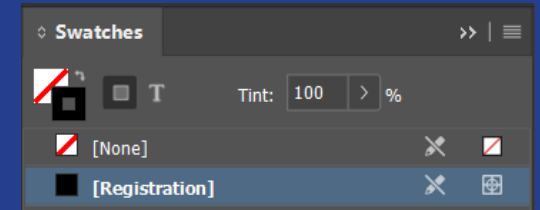
## KNOCK-OUT TEXT

80% ink coverage.

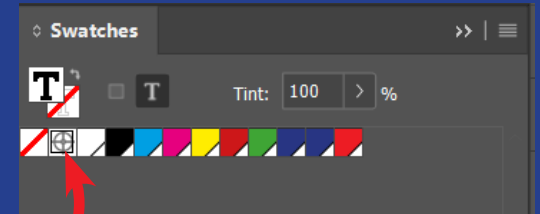
## KNOCK-OUT TEXT

60% ink coverage.

8pt 10pt 12pt 14pt 16pt etc.



OR



registration  
black

Avoid overprinting colours for body text. Any misalignment will make the text very difficult to read.

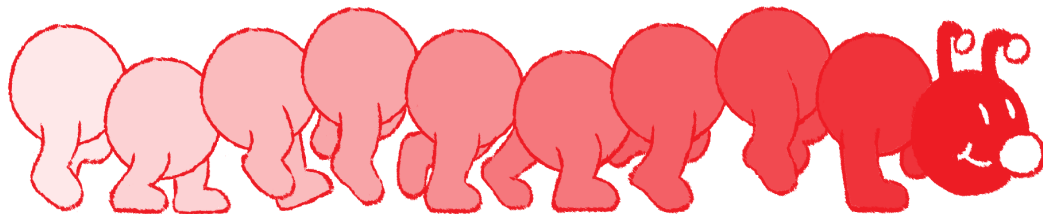
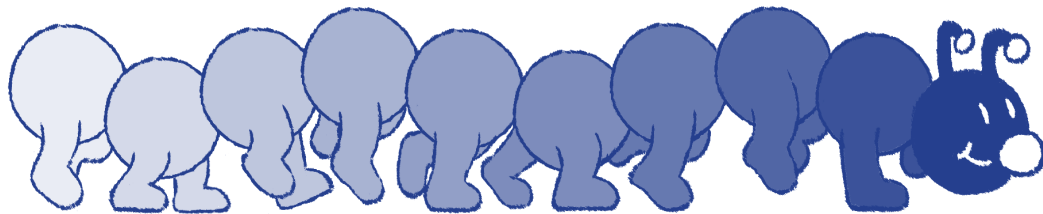
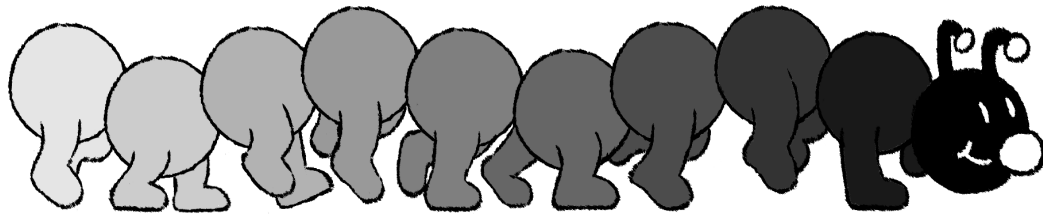
Keep text and lines as vectors.  
Do not rasterize!

Minimum line size is 0.25pt  
(registration black only).

Minimum recommended  
text size is 8pt  
(registration black only).

# OPACITIES.

The riso printer receives the images in greyscale. It interprets the ink density via the opacity in the black and white images. It will register these different shades of grey, which will be visible in the output.



Each colour is printed separately using its own master stencil. The darker your original artwork, the stronger the ink will print.

One common mistake is to design in colour then hit 'greyscale' - that makes everything come out much paler.

Simply converting your work to "greyscale" in Photoshop (for example), isn't enough to accurately prepare your work for print.

For the best results, it's best to work in black and white from the very beginning. Later on in this document, there will be more methods on workflow directly for riso-printing.

You should also double check that your background is completely white - any paper texture will be caught by the riso. It's always best to adjust the contrast/levels before sending to print. If in doubt, up the contrast!

# GRAIN-TOUCH VS SCREEN-COVERED.

Riso automatically processes greyscale files into a bitmap, turning grey tones into dots using either the default grainy texture (Grain-Touch) or a halftone pattern (Screen-covered).

If you want to use a particular setting please specify when sending in your files.

## SCREEN FREQUENCY:

This controls the size of the dots produced.

Higher numbers: smaller, and more dots.

Suggested screen frequency numbers: 75, 80, 85.

It's not recommended to go higher than 90.

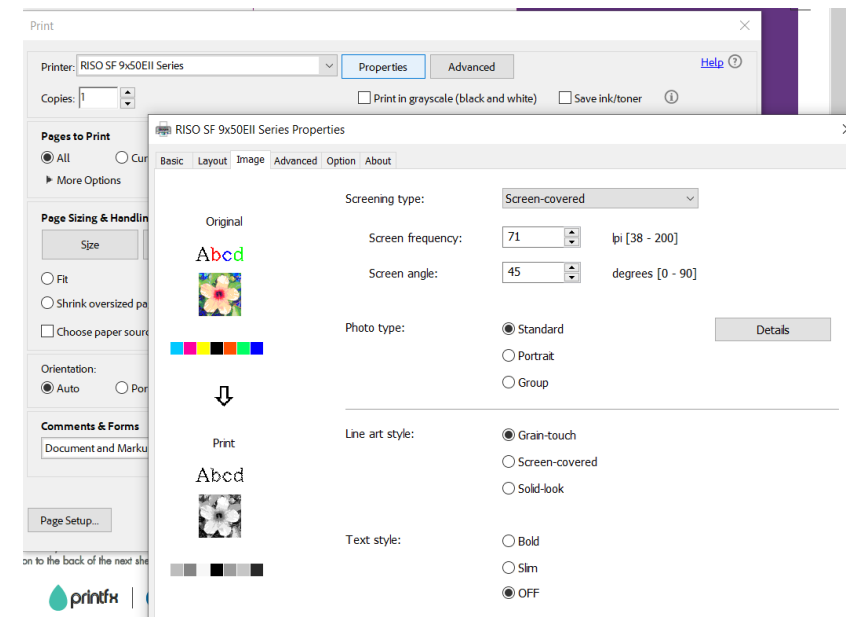
There is no need for you to add any half-tone/bitmap textures to your images. The printer does it automatically, but you need to let us know if you'd like us to print with half-tones.

The Riso will not print vector objects lighter than pure black in graintouch, only screen-covered. If you'd like vector objects to be printed with graintouch they must be rasterized at 600 ppi.

## SCREEN ANGLE:

Control the angle that the pattern is set to in order to avoid the moiré effect. For one-colour work, a typical angle is 45°. For two-colour work, You will put 30° angles apart from each other 15°, 45° (Usually the lighter colours get the lower angles).

For faux CMYK printing:  
Yellow:0° Pink:75° Blue:15° Black:45°



These settings are found in the print driver.

# A3 LAYOUT.

The Riso prints on maximum A3 paper, but it cannot print full bleed artwork. The maximum printable area is 287mm x 410mm.

## *DOCUMENT SIZE:*

297mm x 420mm.

## *MAX PRINTABLE AREA:*

287mm x 410mm.

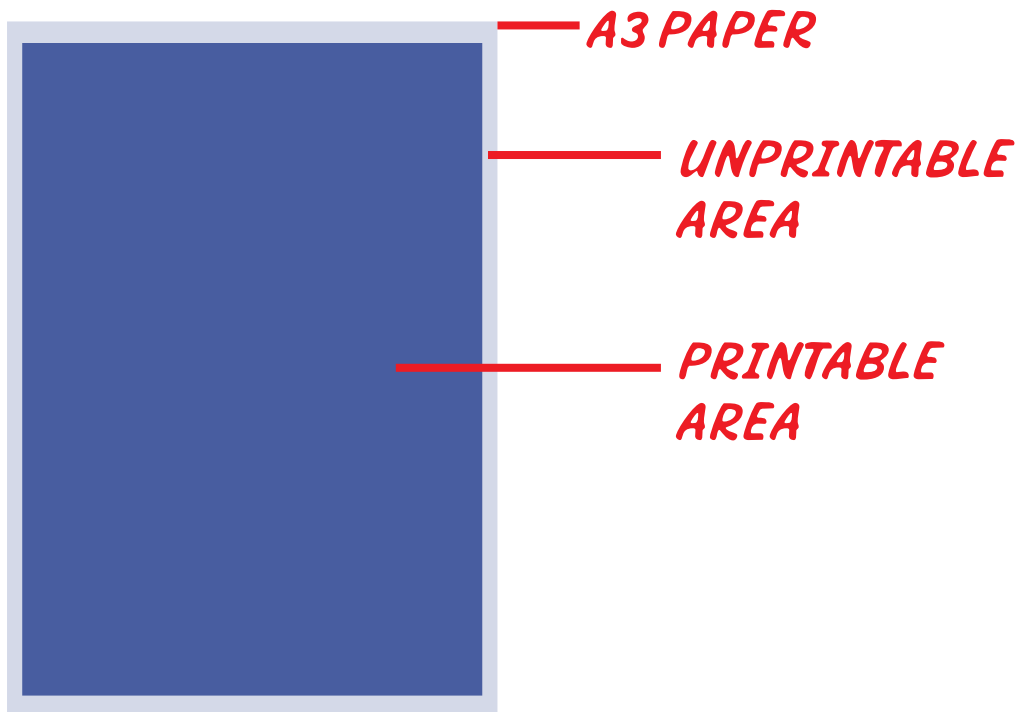


Diagram by  
Risotto Studio.

Regardless of the final size of your work (be it A3, A4, A5, etc) it will be printed on an A3 sheet and cut down to size.

## *BLEED:*

If you intend your final print to be full-bleed, please make sure to add 4mm bleed to all sides of it. The bleed still has to be within the printable area of the page.



## What is Bleed?

In printing, bleed is the area of a design that extends beyond the final trim edge, allowing images or colors to run to the very edge of the paper without white borders. Printers request bleed to make sure the final trim is neat, and not accidentally showing any white.

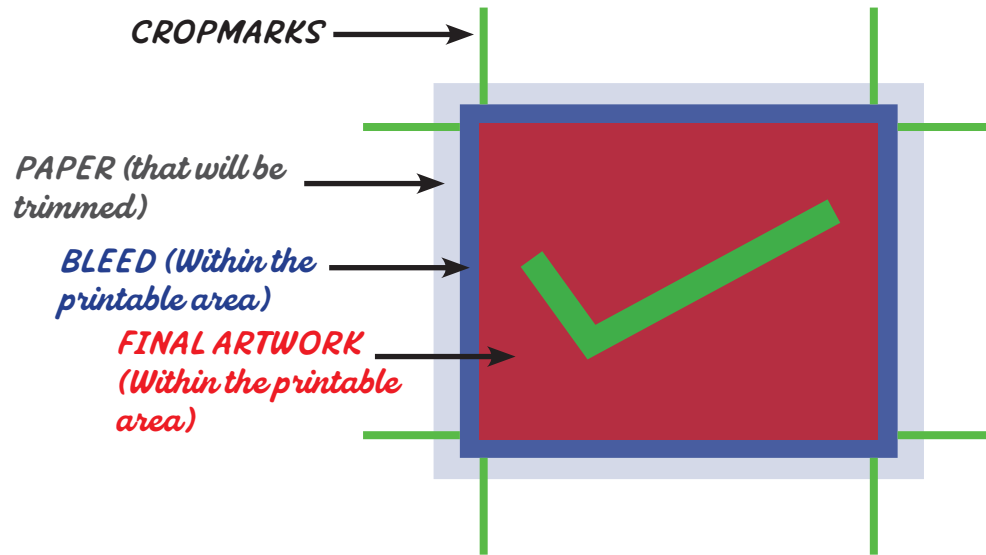
Make sure there's no important info/design bits in the bleed area, as it will be trimmed off!

# CROP MARKS

## WHAT ARE CROP MARKS?

Crop marks are the short lines in each corner of an exported PDF that tell the printer exactly where to cut. They sit just outside the trim edge, with a small gap (the offset) so they don't print inside the bleed area.

Your crop marks should never touch, and they should not extend into the bleed area!

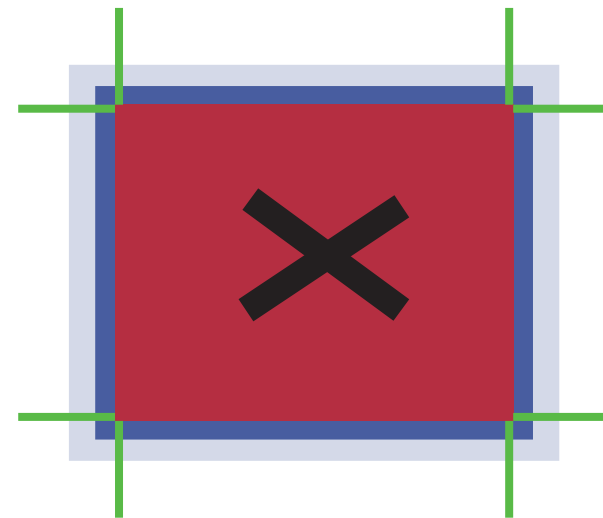


### **CORRECT CROP MARK SET UP**

The marks are outside the bleed area and not touching.

Crop marks are necessary to include if your final work needs to be trimmed down.

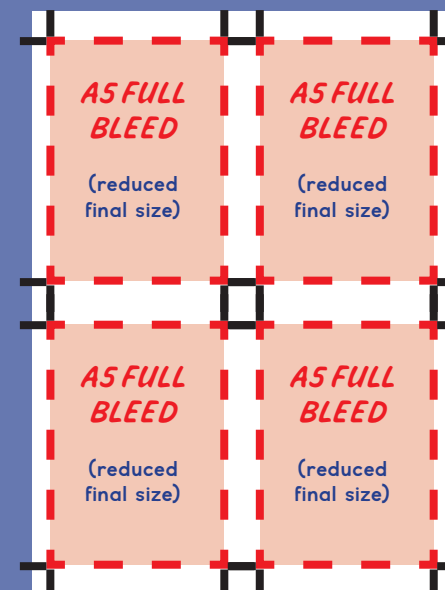
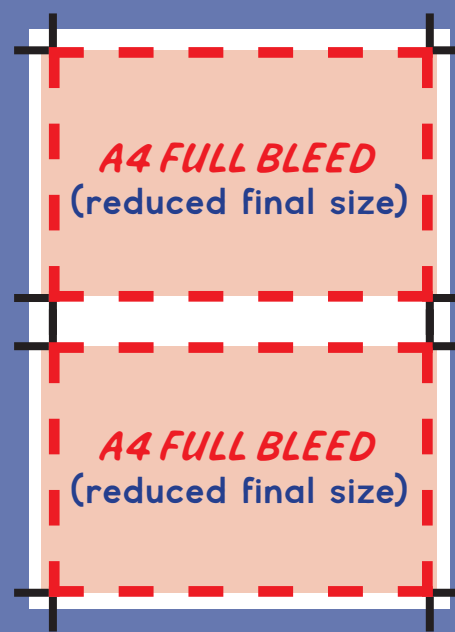
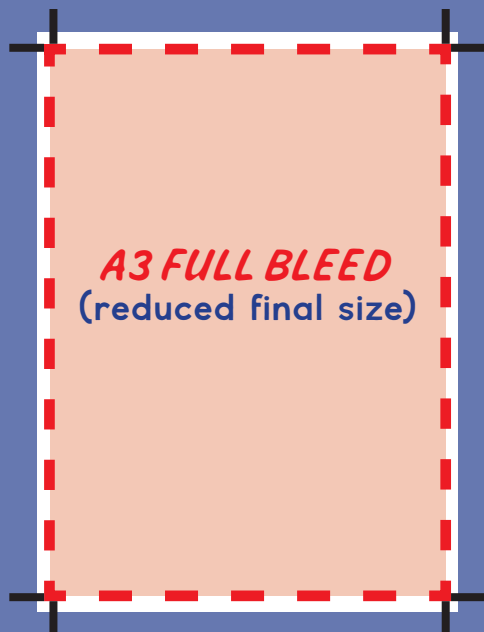
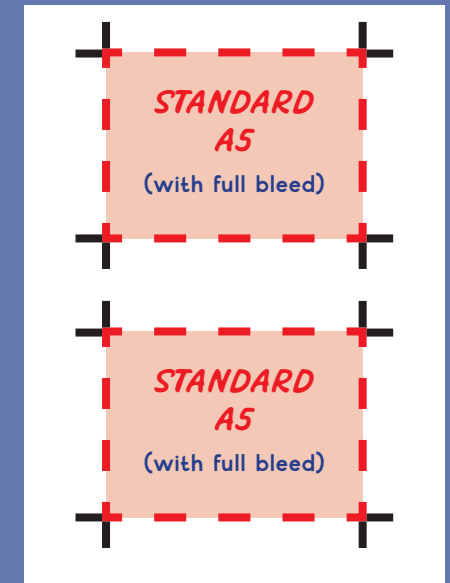
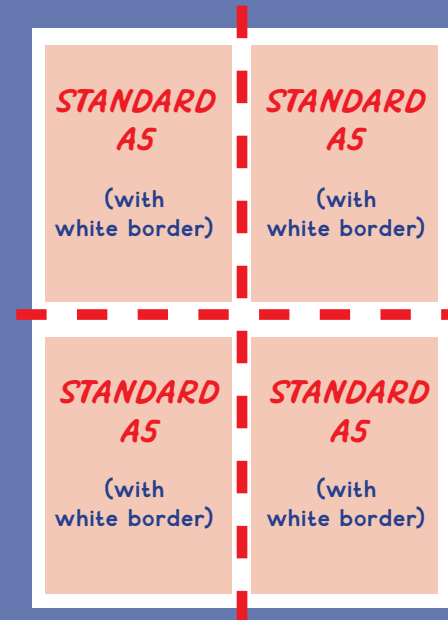
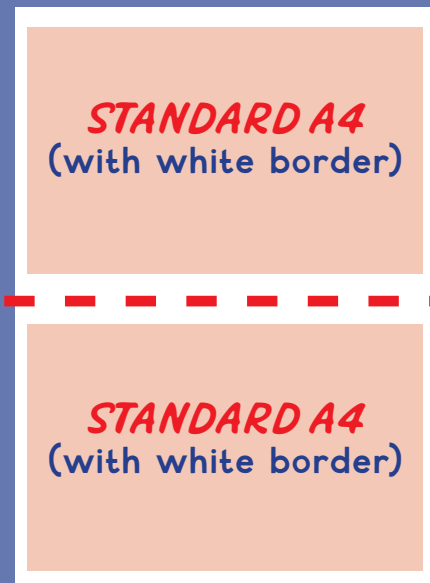
If you're printing an A3 poster with no bleed, there's no need to include crop marks.



### **INCORRECT CROP MARK SET UP**

The marks are inside the bleed area and touching.

# LAYOUT OPTIONS



Please refer to the templates on our website for how to set up your final layout to print!

**Standard sizes without bleed don't need crop marks!**

# NAMING YOUR FILES

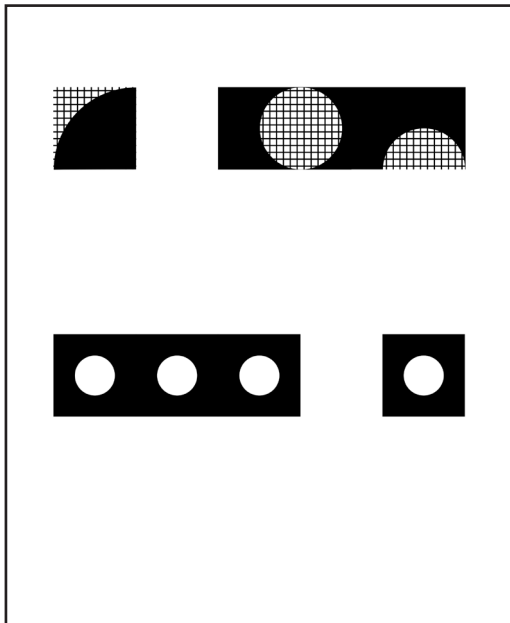
Since you have to send us your final files in black and white, it's definitely not obvious to us which inks you might want to print in.

It's super duper important that you name each file the colour you want it printed in.

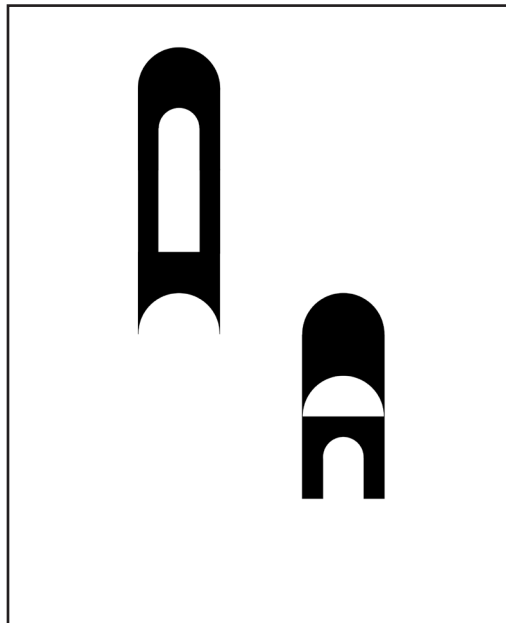
## EXAMPLE:

A 3 colour print would have 4 separate files.

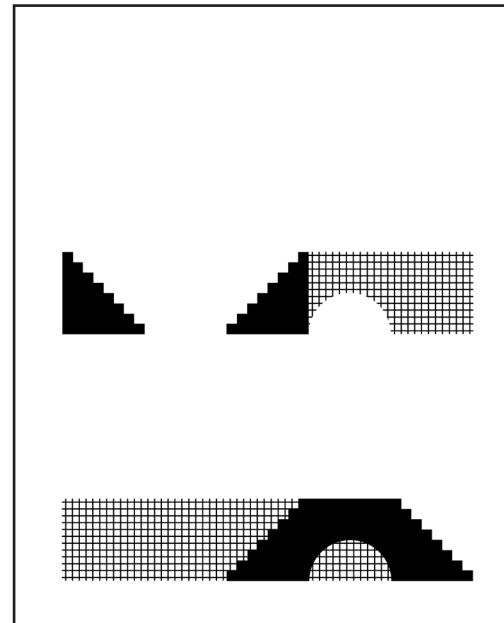
HOUSE\_Yellow\_01.pdf



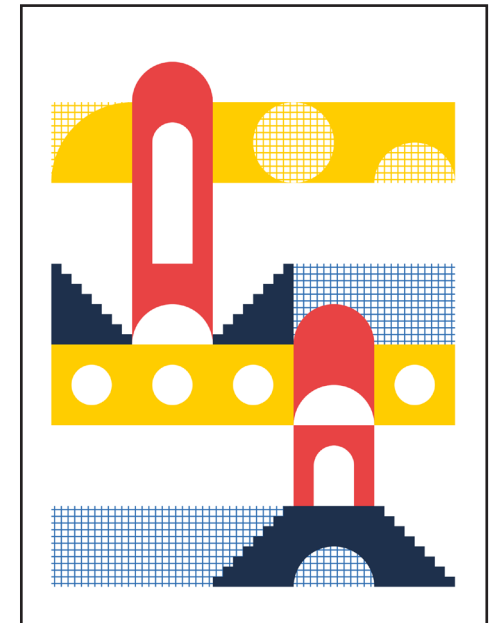
HOUSE\_Red\_02.pdf



HOUSE\_Blue\_03.pdf



HOUSE\_Proof.pdf



## WE WOULD NEED:

- One file for every colour you intend to print in.
- A full colour proof for us to use as reference.

If you have a preference, please indicate which colours you'd like printed first (01, 02, 03). We usually print lightest to darkest, to reduce track marks and smudging.

# NAMING YOUR FILES

*FOR DOUBLE SIDED ARTWORK, PLEASE  
MAKE SURE TO INCLUDE THE SIDES:*

HOUSE\_Side01\_Yellow\_01.pdf

HOUSE\_Side01\_Red\_02.pdf

HOUSE\_Side01\_Blue\_03.pdf

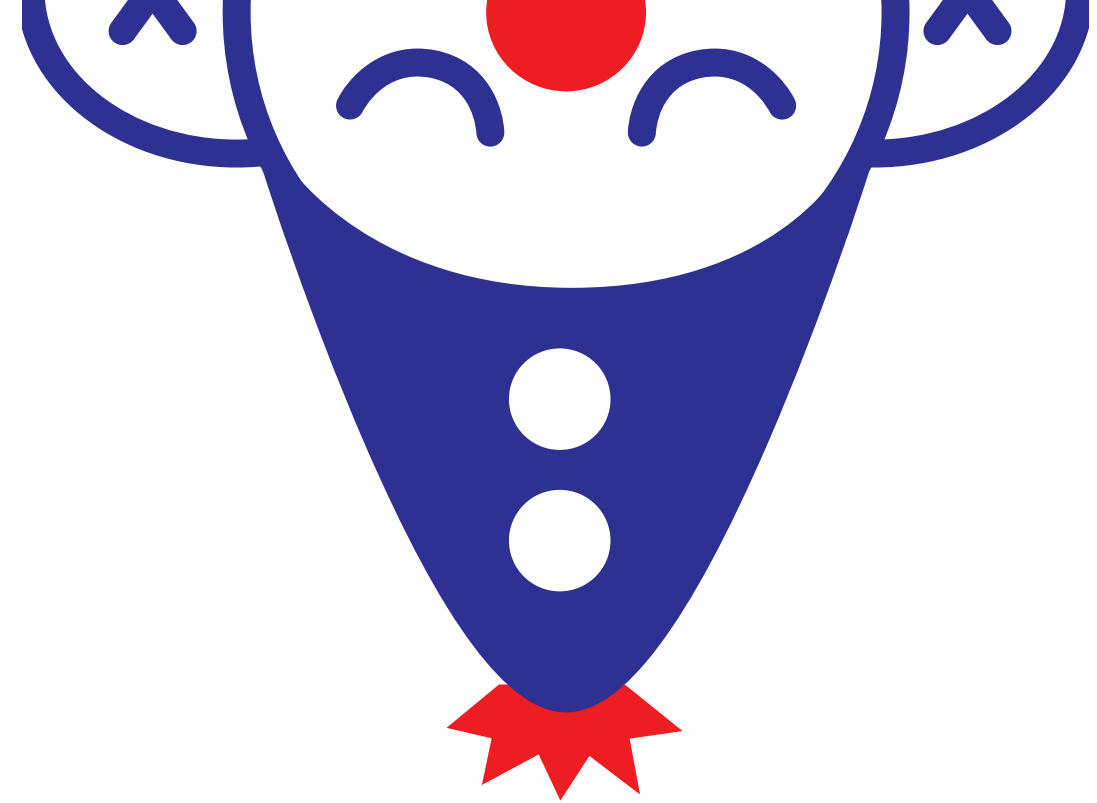
HOUSE\_Side02\_Yellow\_01.pdf

HOUSE\_Side02\_Red\_02.pdf

HOUSE\_Side02\_Blue\_03.pdf

HOUSE\_Side01\_Proof.pdf

HOUSE\_Side02\_Proof.pdf



## **IMPORTANT!**

*PLEASE DO MAKE SURE TO SEND  
US A FULL COLOUR PROOF FILE!*

*THIS WILL HELP US SPOT ANY  
POTENTIAL SET UP MISTAKES  
DURING OUR PRE-FLIGHT CHECK!*



*IF SENDING MULTIPLE  
ARTWORKS, PLEASE ENSURE THEY  
HAVE DISTINCT NAMES!*

# HOW TO PREPARE YOUR FILES TO PRINT

There are several different ways you can prepare your files to risograph print.

## Screen Lock Technique



With this technique, you plan your image right from the beginning in greyscale, using blend layers to simulate the colours.

## Channel Separation Method



With this technique, you need to know which colours you intend to print with right from the beginning.

## Alpha Lock Technique



With this technique, you need to know which colours you intend to print with right from the beginning.

## Spectrolite



With this technique, you need to know which colours you intend to print with right from the beginning.

*WHILE YOU CAN ADAPT MOST WORKS TO RISOGRAPH PRINT, THE BEST RESULTS ARE ALWAYS THOSE WHICH WERE PREPARED WITH RISO PRINTING IN MIND FROM THE BEGINNING.*

*ALL OF THE ABOVE TECHNIQUES ARE ONLY SIMUALTIONS AND WILL NEVER BE 100% ACCURATE TO THE FINISHED PRINT.*

# SCREEN LOCK TECHNIQUE

This is the technique we tend to favour when designing artwork.

Set up as many layers as you want colours. For the sake of this example, we'll be working with only 2 colours, RED and BLUE.

Create one layer and label it RED. Set it to Multiply mode. Create a second layer and label it BLUE. Set it to Multiply also.

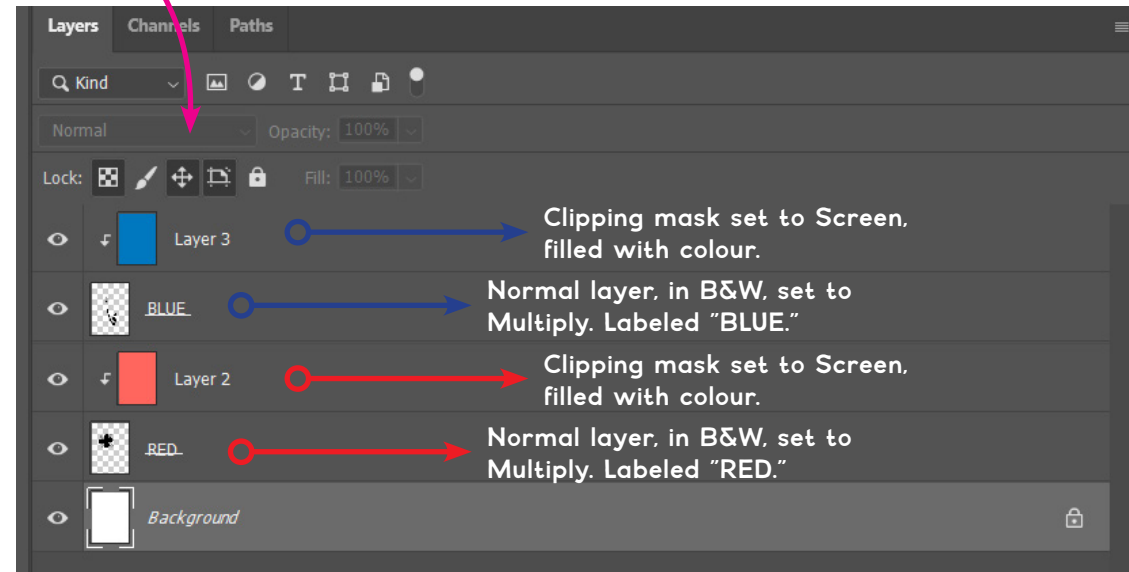
Next, create a new layer, and make it a clipping mask and clip it to the RED layer. Using the bucket tool, fill this clipping mask with the colour red. Set this layer to Screen mode.

Repeat this step for the Blue layer, but fill the clipping mask with the colour blue.

This set up will emulate the riso printing colour overlays. This method also easily lets you change colours and experiment with different combos.



Change layer mode from here.



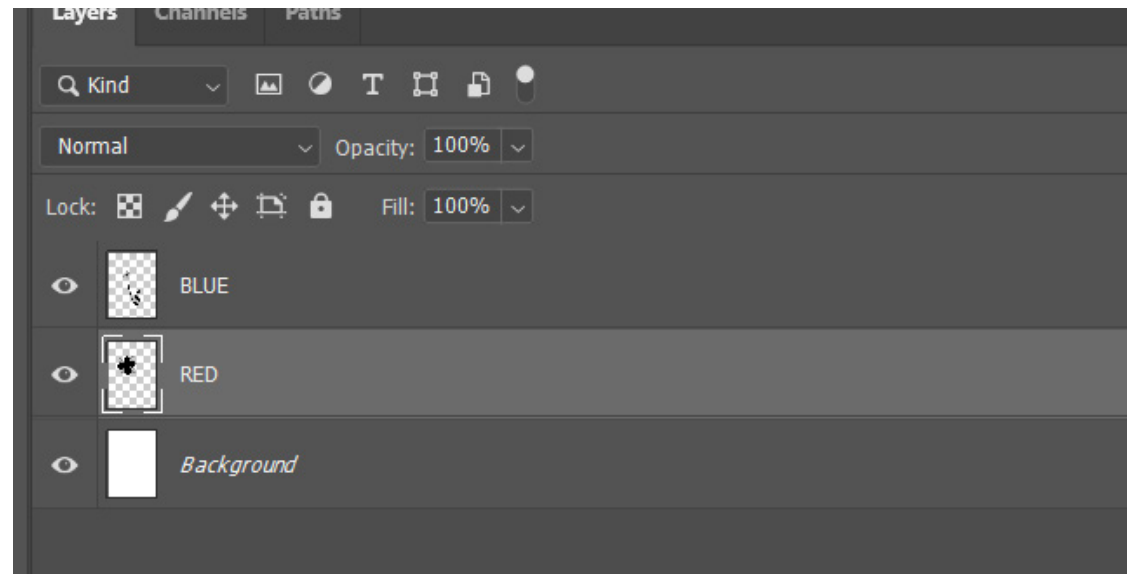
# SCREEN LOCK TECHNIQUE

Once you're done designing your artwork, save up a new version. Delete all the clipping masks and set all the B&W layers to Normal layer mode. Each B&W layer should still be labeled the desired final colour.

Please save out the artwork into one of the attached templates on our website should you require any trimming or sizes other than A3.

Export each layer individually as a B&W pdf. Make sure they're 300dpi and the right size.

**TIP:** With this technique, we prefer to play around with opacities with different layers, rather than through the brush opacity. It gives more control over the final result or if you want to change anything later on.



# ALPHA LOCK TECHNIQUE

For this technique, you need to know what colours you want to print with from the very beginning.

Draw/paint within layers directly using the colours you want to print in. Make sure that you separate layers based on colour.

For example, only paint with red on one layer. Anything in blue, paint on a separate layer. All layers should be set to Multiply mode. Make sure to work in separate layers.

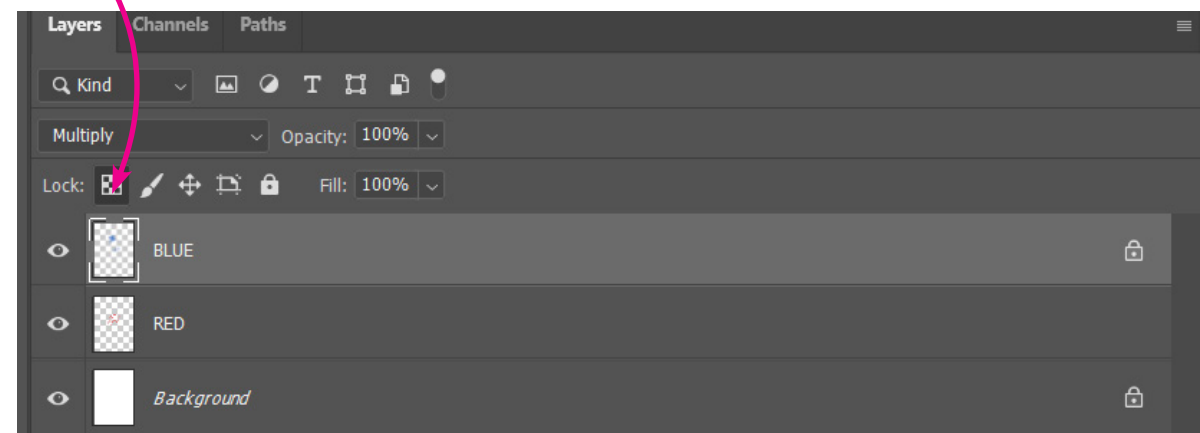
With this technique, make sure to change opacities through the brush settings, not the layer settings.

When you're done drawing/painting make sure to save a new version! As we continue we will be making changes that can't be undone.

Once you're saved, select a layer and enable the Alpha Lock.



Enable Alpha Lock from here.



# ALPHA LOCK TECHNIQUE

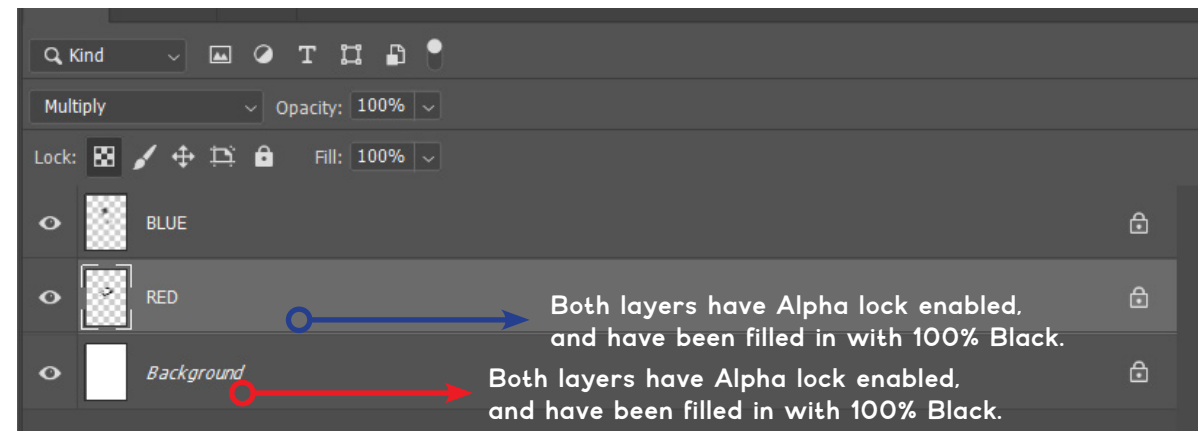
Select the colour 100% black and paint the layer. You should be able to see the opacities you've made show up as greys.

You can repeat these steps to visualise how your layers look when printed. The multiply mode will emulate the mixing of the colours as they would after printing.

Once you're done converting everything to B&W, merge the layers based on final print colour. AKA all red layers (which are now B&W) get merged together into one Normal layer. All the blue layers get merged and so on.

Please save out the artwork into one of the attached templates on our website should you require any trimming or sizes other than A3.

Export each layer individually as a B&W pdf. Make sure they're 300dpi and the right size.



This is a more organic technique for those who like painting, but is much harder to experiment with or make changes after.

# CHANNEL SEPARATION METHOD

This software is great for converting photos and traditional scanned art into risograph ready art. Channel separation via custom color profiles give the most accurate results, but they can cost money, have a non-negligible learning curve, and requires profiles for each combination of inks.

Here are two useful videos that explain this method:



[CMYK Separations Risograph Tutorial by Olivia and Pindot](#)



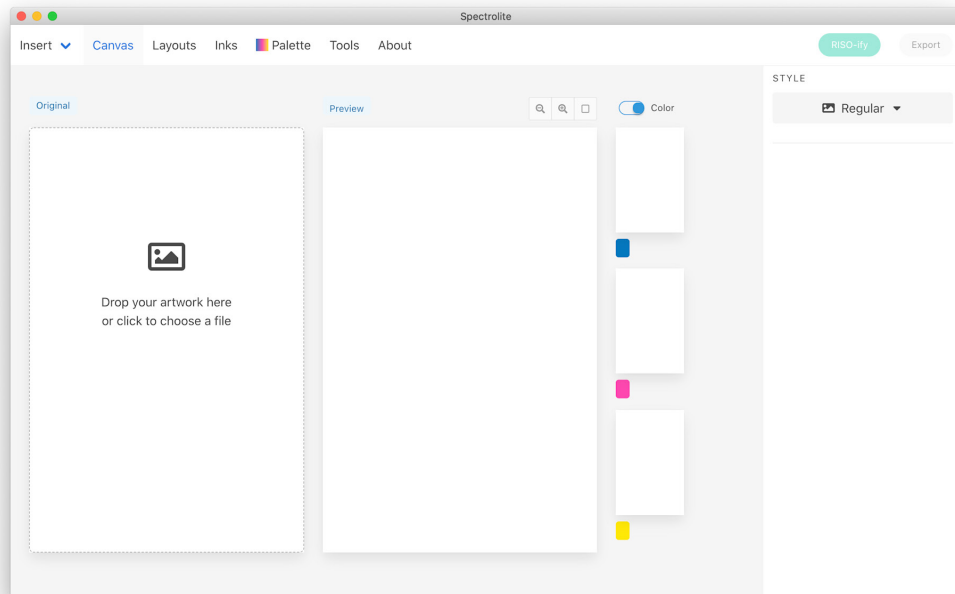
[HOW TO: Use Color Profiles for Riso Printing by Risolve](#)



# SPECTROLITE

This software is great for converting photos and traditional scanned art into risograph ready art without the cost and difficulty of colour profiles.

Spectrolite is a free software that can be downloaded here: <https://spectrolite.app/>



If you are able to create your art in a way with colors already separated by desired ink, use those layers to create separations: don't flatten that art, then bring that into Spectrolite.

Spectrolite is a great software. Spectrolite does not use CMYK channels at all. It analyzes each pixel of the artwork you supply and calculates how much of each color in your ink palette is needed to create the closest equivalent color. In other words, it creates channels for each ink that have no relation to CMYK or RGB separations. Spectrolite uses the hexcode equivalent value for each riso ink, and does not appear to take ink opacity into account, so the results are still not as accurate as custom color profiles would be.

In general, big bold overlapping geometric shapes will highlight the limitations of Spectrolite. The edges of shapes may show odd artifacts, and you might find ghost impressions of colors where you wouldn't expect them.

# FAUX CMYK EFFECT

When attempting to riso print photos or images with a wider colour spectrum, a faux CMYK effect can be used to imitate the real CMYK printing process. This is done by using the riso inks yellow, black, fluorescent pink and blue (as opposed to magenta and cyan). Other inks can also be used to create the desired pallet, depending on your intended final result.

# GENERAL PREP TIPS

When printing images, make sure there is good contrast overall and open up the mid-tones.

Please don't apply any halftone effects to the artwork. The riso printer will do this automatically through the **screen-covered option**. Just make sure to let us know that you'd like us to print with that option.

In addition, the riso printer also automatically adds noise/texture to the final print, so be careful what textures you add to your image.

## *ALWAYS DOUBLE CHECK:*

Label your files clearly

Your overall file should be A3 size (420 x 297mm)

Create a separate grayscale PDF for each ink colour/layer

Files should be 300dpi resolution

Leave a minimum of 10mm blank margins on each edge (maximum printable area of 410 x 287mm)

Flatten any layers with an adobe software before exporting your PDF



# EXTRA SERVICES



## Rush Job

If you need to fast track your print job, we'll try accomodate you.

This extra fee is calculated at a percentage of the project depending on the overall complexity.



## Print Proofing

Due to the Riso process, print proofs aren't standard practice as most of the cost is in the initial printing set up and stencil making. We do however offer this service at €15 per colour stencil tested.

Please keep in mind that this will add on production time to the overall job, to give you time to see the proof by appointment.

We recommend this service for very large print runs or colour sensitive orders.



## Blotting

If you require reduced smudging and a cleaner finish, we highly recommend this service, especially for business cards, invitations and greeting cards.

Each riso print is separated with blotting paper as they pass through the machine. This process helps soak up any extra ink and protects the back sides from unwanted transfer.

The fee for this service depends on the overall quantity of prints ordered.



## File Prep Services

If you are struggling to prep your files to print, this is a service we provide starting at €20 per hour.

# EXTRA SERVICES



## Design Services

Please do reach out to us should you wish us to design your print project from scratch. Tell us about your project and we'll pair you with a designer who will bring your project to life, either from our in-house designers or by connecting you with a trusted artist.

The price depends on the artist.



## Consultation

Ok, so you've been patient enough to read through all this info but you're still missing something, or maybe it's too much and you'd like to speak with a human? We are happy to help and advise on your project any time, if you prefer in-person meet-ups, we could arrange a studio visit or an online call.

We offer a 60 minute consultation for an additional fee of €30.

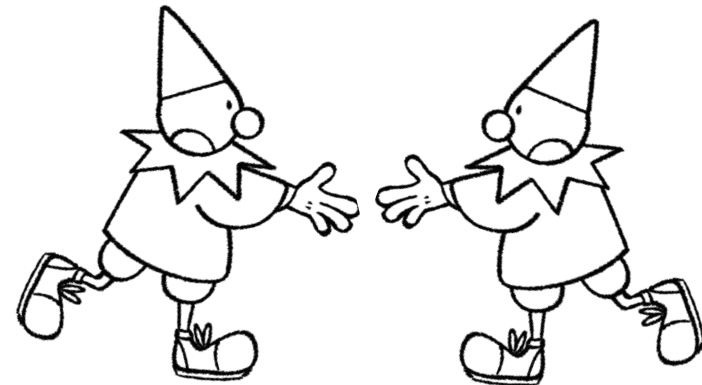


## Workshops

Want to have a hands on, in-depth workshop about how to prepare your work and actually print with the machine? Reach out to us for a private workshop.

We can accommodate up to 4 people, and the workshop is typically 6-7 hours.

Our pricing for this kind of workshop starts at €20 per hour, so a 6-7 hour workshop would cost €120-€140 without VAT. This price includes printing materials.



# TURNAROUND TIME

Although the overall Riso printing time is fast, certain aspects of a job still take time, especially as we do our due diligence to ensure high quality prints.

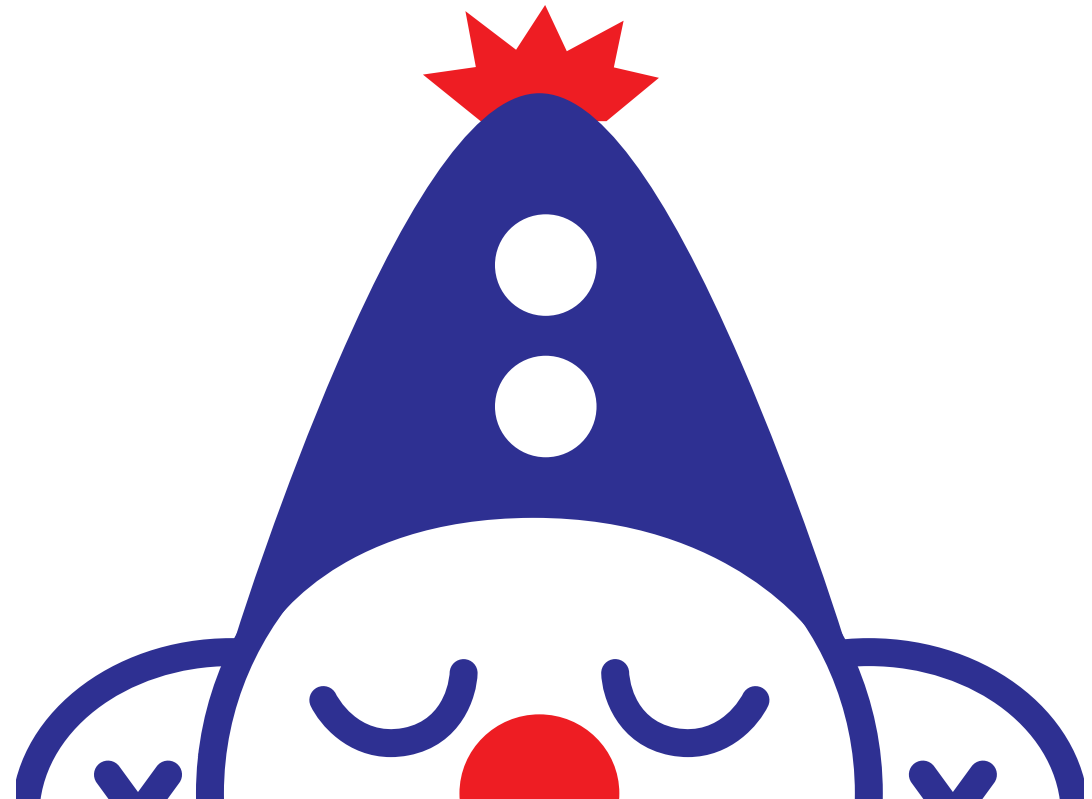
The pre-flight checks, drying and trimming time and making your prints as aligned as possible are all a part of this process.

The more layers/colours you use, the longer it takes. We like to leave at least 24 hours between each layer to reduce the potential for smudging.

Also, if you're ordering specific paper and we don't have it in stock, we need to source it and trim it down to A3 from our local supplier. This will add roughly 5-10 working days on average.

Please ask about turnaround times. They change depending on the time of year and the project.

We can shorten the drying time via our Blotting Service, where extra paper is layered between each print to soak up excess ink.



# AMENDMENTS

Once printing has started, it is not possible to make amendments. The print job will have to be done from scratch and charged accordingly.

Although we do a pre-flight check before printing, it is impossible for us to spot certain issues with your file until we've printed it.

If we are not the ones preparing your files to print ourselves, any issues are your responsibility to check and correct, and we cannot be held liable for this artwork set up.

# COMMON PROBLEMS

## *THESE TEND TO BE:*

Any transparencies or layer effects such as drop shadows, masks and so on, or if your files are made up of varying elements (smart objects etc), please make sure to set all blend modes to normal, remove or fully incorporate these effects and flatten your artwork down.

If using any gradients, please make sure to check the gradients page to ensure your lightest values don't fall within the 10-20% range.

If using any small text, thin lines/logos, please have them set to "registration black" and do not rasterize them.

Please make sure to thoroughly check any illustrations or text, scanned or otherwise, that have been edited in Photoshop, to ensure they have been "cleaned up" fully and have no unwanted artefacts.

# TERMS & CONDITIONS

All print jobs are to be paid for in full before it leaves the studio.

A confirmed job request will be taken as order confirmation.

When you confirm an order, it means that you have read and accepted our Terms and Conditions.

If a job is later cancelled by you, you will be charged for any costs incurred (such as paper ordered in).

Work over €150 will require a 50% deposit before printing can commence.

You acknowledge that all details which you provide to us for the purpose of the job are correct, that the credit/debit card you are paying with is your own and that you have sufficient funds to cover the cost of the order.

You acknowledge that the turnaround time is variable and might change depending on the job.

We accept no responsibility for any missed deadlines should the files be incorrectly submitted or require amendments.

We reserve the right to revise the price of items without notice.

All orders are subject to acceptance and availability.

We reserve the rights to modify, alter, terminate or discontinue any discounts or promotions at any time for any reason whatsoever without notice.

You are responsible for ensuring the the artwork you send to print is correct, accurate, and appropriate for publication and printing. Do not submit anything you know to be unlawful or harms the rights of others.

We will do a pre-flight check before printing, but we do not monitor the content. If you have prepped the file, it is up to you that the file is set up correctly.

# TERMS & CONDITIONS - CONT.

We cannot guarantee that supplies (such as paper) quoted in initial email correspondence will be available immediately.

We have made every effort to accurately display our products with the correct information and colour. However, we cannot guarantee that all monitors display accurate colours of the products as each monitor displays differently.

We are unable to accept responsibility for work that is not collected within 6 weeks of completion.

If a full colour proof is not provided, then we will not print the work until it is received.

In the event of delay or loss in the post or by a courier, we will not be held liable under any circumstances for consequential loss or damages resulting from third party actions.

# DISCLAIMER

The Risograph printer is not perfect like a digital printer and imperfections are part of the process. The prints will look different from what you see on your monitor.

There will be print marks, especially when printing more than one layer or double sided. Registration will not be perfect, with each print varying slightly from one to the next.

Part of the appeal of this process are these imperfections coupled with the hand printed quality, as this is the intrinsic nature of the machine and its output.

Unlike most other printing methods, Risograph spot colour inks do not conform to a pantone standard (the provided Pantones are approximates. Additionally, the inks are slightly translucent so finished colour will vary depending on your paper choice. The ink is also similar to newspaper ink and never fully dries.

# OTHER RESOURCES



## Stencil Wiki

Stencil.wiki is a comprehensive resource dedicated to stencil printing, providing tools, guides, and a collaborative platform for artists, designers, and enthusiasts to explore techniques and innovations in stencil-based printing.



## Layout Department

Created by Anemone Press, Layout Department is software for laying out books, zines, and booklets. You drag and drop PDFs to make the imposed print files. It's a tool for artist publishers, small printshops, and people who like making print publications. There's a free and a paid version.



## RISOTTO Website

A Riso studio based in Glasgow, their website is a treasure trove of information. They even have a browser riso simulator!



## Spectrolite

Created by Anemone Press, this free software is invaluable to prepare your files to riso print.



## Exploriso

An incredible in-depth resource on all things Risograph printing, including its history.



## Natalie Andrewson

A Riso printing giant, her book "Dreaming in Colour" and her Patreon are fantastic resources!

# FUTURE PAGES

In the future, this guide will have more info on:

Layout imposition for zines.

Page creep

Colour profiles

Binding methods

Duotone images

Scanned samples of our paper