

DFA Workflow – From Scanning to Reproduction Art Works

The 4 main steps to creating a giclée print on Hahnemühle papers are:

1. Create artwork
2. Scan
3. Manipulate image
4. Print

There are other steps in between that need consideration such as the best way to capture the artwork, how to adjust the digitised image once its in the computer, using image manipulation programs such as Photoshop, and color management to create as close a copy to the original as possible. If you are looking to create giclée prints, whether you are a publisher, artist, photographer, or creating any reproduction that needs to be archival, the basic equipment you will require is:

1. Scanner or digital camera
2. Computer - PC or Mac
3. Inkjet printer
4. Hahnemühle Digital FineArt papers

Artwork



* Take your original piece of artwork: watercolor, oil, acrylic, silk painting, pastel, pencil, pen and ink drawing, etching, screenprint, photograph or digitally created artwork, textiles or any 2 dimensional work.

* Prepare for scanning or photographing by:

- fixing pastel drawings
- make sure oil and acrylic paintings are completely dry
- removing all frames and mounts if possible
- if it is not your own artwork, check the copyright to ensure you can legally reproduce the work.

Scanning



Any artwork that is flat can be scanned.

* It is always best to scan from the original artwork wherever possible.

* However if the piece of work is too big to fit on your own flatbed scanner, there are a number of other ways to digitise your artwork:

- Take work to a professional photo lab or repro print bureau, who can scan your image for you onto CD (Hahnemühle work with a number of bureaus who offer this service, please call for details).
- If your work has a lot of texture or you want to reproduce an image of 3D or sculptural work you will need to get this photographed professionally onto transparency or scanned with a scanback.
- A good tip is to think how you want to capture your artwork when creating it if possible. Think about format and size.

Types of scanners:

Flatbed scanner - scans from an original artwork or photograph. Some models come with a transparency adapter to scan from slides or negatives up to 5 x 4".

Film Scanner - for scanning from film or transparencies only.

Professional - the same as a standard flatbed scanner but will usually scan up to A3 size from originals and transparencies and is capable of much higher scanning resolutions.

Drum Scanner - capable of extremely high quality results, highly skilled operation. Not suitable for original artwork, only film.

Digital Camera - the image is captured into a digital file and there is no intermediate processing stage in-between. The image can be downloaded straight onto the computer.

Scanback - All the advantages of a digital camera, but this is professional quality digital capture. It is a digital back that fits into large format camera, it scans directly onto a computer interface. Photographic studio set up required.

* The other important thing to understand about scanning is the resolution of the scanned image. The higher the resolution of a scanned image the more information is held. The resolution of an image is measured in 'dpi', dots per inch. The 'dots' refer to the pixels that make up the image, for example a resolution of 150 dpi means that in each inch of the image there are 22500 pixels.

There is a basic rule of scanning that if you follow, will give you high enough quality results to print successfully;

* If you are scanning from an image and want a print to be the same size -scan at 300 dpi (e.g. if your original is A4 and you scan it and print on an A4 sheet = 300 dpi).

* To print to twice the size - scan at 600 dpi, and so on doubling the scanning resolution in relation to the size of the original image. (e. g. if your original is A4 and you scan it to print on an A3 sheet = 600 dpi).

* This also applies to computer generated artwork, so make sure the original document size when you create new work is at least 300 dpi.

* Remember: It doesn't matter how good the quality of the printer is, if you don't capture enough information initially, it will always appear pixelated.

* If scanning from 35 mm or 5 x 4" transparencies, remember you will be increasing the image size quite substantially, so set your scanning resolution accordingly.

Image Manipulation and Color Management



* Open your scanned artwork into an image manipulation program on your computer.

* These programs allow you to do any tidying up of the image such as Cropping, rotation, resizing, add text and change contrast and color balance.

* If you are working from a good scan all you should need to do is crop any edges from the scan. It is a good idea at this stage to do a print as a guide to see what kind of results you get, as what you see on the monitor is not always a true representation of what will print out. This is because various printers and inks will have different color ranges or gamut.

* Then you can adjust the colors or contrast accordingly, proofing the image as you go along.

* All scanners scan in RGB mode, and for inkjet printing it is best to keep working within this colour space, as it has a larger range of colors. The only time you need to work in CMYK is if you are setting up images for press reproduction with 4 color off set litho. I.e. for magazines or book reproduction.

Printing

Print set up guides - small format up to A3+:



* When using the Hahnemühle Digital FineArt papers the best paper setting is generally Photoquality Inkjet or Watercolor Paper. However, try different settings to get a result you are happy with.

* We recommend you only feed one sheet of paper through the printer at a time. You may have to guide the heavier sheets into the feed position by hand, desktop printers are not a

handsfree printing process.

* Printers that feed the paper from a tray at the bottom will generally take papers up to a weight of 210 gsm.

* Within your page set up menu you can set the printed resolution of the printed output from 600 - 2800 dpi, depending on your printer type.

* Always make sure you print on the coated side of the paper. Usually you can feel the coating on the paper surface. It is also a good idea to blow any coating residue from the surface of the paper before printing to avoid white marks later on.

* Only handle the paper by the edges, try not to touch the surface too much.

Wide format; rolls sizes up to 44"



* If you are using a wide format printer, you will probably be printing more than one image at a time, and therefore be using some kind of RIP (Raster Image Processor) software. The advantages of using a RIP are:

* You will have more precise color management provided by inbuilt colour profiles for the papers and inks you are using.

* To allow the most economical use of the paper, a RIP will layout all the images you want to print on the roll using the paper capacity to its best.

* As a RIP is usually run from a separate workstation, it will save time by freeing space on your main working computer.

* If you don't want to use a RIP you also can soft proof through Photoshop by selecting color profiles in the print set up menu. You will still have to have specific profiles created for your particular paper + printer type however.

* Most wide format printers will take all our weights of paper and boards. Also check the core size of your roll holder as many of our roll sizes have a 3" core as standard.

Choice of media

Which Hahnemühle paper should you use?

The advantage of a coated watercolor paper is that the ink doesn't sink into the highly absorbent surface of an art paper. The coating allows the ink to sit on the surface so you don't get ink bleed and you retain the colour and resolution quality. It is a personal preference; however, some papers do seem more suited to certain types of work. For example, the Photo Rag compliments detailed and continual tones of photographic or computer generated work. German Etching is also a smooth surface but with a softer surface texture, and is more natural white in colour which suits detailed watercolors or sketches. Other papers that have a more prominent surface texture tend to suit pastels and oil reproductions.

Limited Edition Printing



* The main advantage of publishing digitally, is that you can print on demand, therefore, cutting costs by only printing what you sell in the edition. You don't have unsold prints to store, and you have the option to print your work at different sizes and on different paper types, with ease. You are not committed to the high quantities or costs of offset litho printing. This means the artist, gallery or publisher has much greater control over the whole process.

- * Always sign, date and number your limited editions.
- * Use the Hahnemühle Hologram System for added authenticity and security.

Archivability



* Papers must be acid free and between pH 7 - 9 to comply with the Fine Art trade guild specifications for a Fine Art print.

* In recent years the market for limited edition giclée prints has moved to a new level with the introduction of pigment ink sets. In some cases artists prefer these inks as they have set new standards in this area. (generally desktop printers use inks that are dye based but will fade faster).

* Major advances in OEM ink technology have helped bring the standards to what they are today.

Other points to consider...

There are a number of other things that can be added to a giclée after printing to enhance it. These include:

- * Hand embellishing - painting onto the print with paints to pick out certain colors or textures.
- * Varnish the print - which will protect and can create a gloss finish. This is particularly effective when printing onto Canvas.
- * Framing - mount and frame your giclée print. Try printing directly onto the Hahnemühle Art boards, which can be put straight into a frame without the need to mount first.
- * Promote your work by creating flyers, exhibition invitations and postcards of the work onto the same paper.
- * Remember, it is the correct combination of media, ink and equipment that makes a successful giclée print.

Experiment, print and enjoy the professional quality print options brought to you by Hahnemühle Digital FineArt papers.