FAQs for digital printing

What are the pros and cons of digital printing?

Pros

- Fast - Up to 80 impressions a minute
- Little setup time
- Use of variable data
- Output is printed on both sides, dry and ready for any bindery work
- Colors are bright and brilliant
- Images are crisp
- Finished proofs on the exact job that will be used for the full run

Cons

With the continuous advances in digital printing technology, there are really no cons with its use. Machines can now run almost any stock that an offset press can and they are getting better at representing even the most difficult PMS color.

How to choose between offset and digital printing:

Typically, quantity is the most deciding factor between digital and offset, second only to deadlines. At some point is a static run, it becomes cheaper to run a large job offset, but if an item contains VDP (Variable Data Printing) components there is no upper limit to quantity.

Offset

- Better and more cost effective for larger static runs
- The right choice when a specific Pantone color or metallic ink must be matched exactly
- Necessary when press sheets extend beyond the 14.3" x 26" current digital maximum
- If the printed piece must go back through a laser printer, the shells must be printed offset with wax-free inks. Otherwise, they may streak during the imprint process.

Digital

- More cost effective for shorter runs
- Perfect for shorter runs with multiple originals – even with different quantities of each
- When a short deadline must be met
- When the job uses variable data

Is all digital technology the same?

There are definite differences between digital technologies and digital presses. Some presses utilize a fuser technology that creates problems if the printed piece needs to be coated with UV or varnish, or will be laminated. There are also different qualities of toner used, depending on the manufacturer of the digital press. The finer the toner particle, the cleaner, crisper the output will be.

Xerox has developed its own toner particles for a uniform size and very high quality. Xerox uses 2400 x 2400 DPI (dots per inch) while other digital press manufacturers use 1200 x 1200 DPI. The higher DPI allows for higher line screens and better image quality on the printed piece.

What size sheets can be run on the digital press?

7.5″ x 7.5″ up to 14.33″ x 26″ – the image size needs to be ¼″ smaller than the press sheet in both dimensions.

What weights can the digital press handle?

55 to 359 gsm (or 50# bond to 130# cover)

What is the best file for digital printing?

The perfect file is a flattened PDF.

How do I need to set up that file?

Create/output the PDF as a high resolution, high quality file. Make sure that all graphics are either grayscale or CMYK images. Make sure that black type is really black and not made up of RGB or CMYK. If the document contains drop shadows or uses transparency, the file needs to be "flattened". Our Prepress Department can work with you to explain how to do this.

Why do colors differ from offset printing and digital printing?

While both offset and digital use the CMYK process, the difference between ink and toner mediums will cause a slightly different look to the printed piece. Offset and digital are rasterized through two different RIP systems which also case variations in color – especially if the file happens to contain RGB elements.

Why can't a digital press print a true match to a Pantone color?

Digital printing uses only CMYK toners so if the document uses a Pantone and/or a metallic color, the front end must translate those colors as close as possible using CMYK. While this translation will come very close on most Pantone colors, there are some (like fluorescent colors, metalics and some pastels) that digital printing will not match as well.

What do I need to know about setting up my data file for variable data printing?

All variable text, barcode data, variable graphic names, anything that will be needed to create the variable data on the final printed piece needs to be supplied in a database format such as .xls, .cvs, .txt. Use the first row of the data file to title the columns. Every database column represents a different variable field used in the layout. Each row under the header is a record and equates to all the data needed to complete a variable data printed piece. If your project pulls data from multiple data files, sort and merge the data together into a single data file. Delete unused fields. Don't put the entire address in one field or separate the address to the extent that the house number is in one field and the street name is in another. Provide your data in upper and lower case letters. Be consistent in data entry. Proof your data and review it for accuracy, omissions and duplications. The text file is the least preferred format but usable if set up and output correctly. If variable graphics/pictures are being used, make sure that they are all provided along with the other data components. We can create most barcodes from your data file (e.g. postal codes, UPC, Data Matrix, and QR).

What are the requirements for images and graphics for printing?

When designing digital files intended for commercial offset printing, it is essential that all of the photographs and images in your in files are at least 300 dots per inch (DPI). If you have ever seen printed material that contains blurry or blocky images, it was likely caused by incorporating low resolution images. Ensuring a high quality printed job is as simple as making sure all photos and images in your digital files are high resolution.

All layout programs allow you to resize an image, but it is important to understand why simply resizing a low resolution image will not produce a true high resolution image. When you resize and make a low resolution image larger to 300DPI, all you are really doing is stretching the image. The technical term is called resampling or interpolation. Since high resolution images are based upon the number of pixels an image contains, resizing will not create new pixels, and will only make each pixel larger by stretching it. The only way to ensure perfect high quality printing of your photos and images is to start with a high resolution image.