

# Services Guide

---

## Printers

*\*NOTE 1: This information is pulled from credible sources. This information is a guide. Any information used from this guide must be re-contextualized (no copying and pasting). Re-contextualize information incorporating SEO and business specifics.*

*\*NOTE 2: For MCP websites, stick to general information and avoid specifics.*

# Table of Contents

---

## Contents

- 1. **Printers Overview** ..... 1
  - 1.1 **General Information** ..... 1
  - 1.2 **SEO**..... 1
- 2. **Digital Printing**..... 1
  - 2.1 **Digital Printer Types** ..... 2
  - 2.2 **Pros and Cons of Digital Printing** ..... 3
- 3. **Offset Printing**..... 4
  - 3.1 **Pros and Cons of Offset Printing** ..... 4
  - 3.2 **Offset Printing Process** ..... 5
- 4. **Photocopying** ..... 6
  - 4.1 **Xerography Photocopying Process**..... 6
  - 4.2 **Inkjet Photocopying Process** ..... 7
- 5. **Large-format Plotter Printing** ..... 7
  - 5.1 **Types of Wide-Format Printers**..... 7
- 6. **Typesetting** ..... 9
- 7. **Screen Printing (Serigraphy)**..... 9
  - 7.1 **Screen Printing Process** ..... 10
  - 7.2 **Types of Screen Printing Presses**..... 10
  - 7.3 **Types of Screen Printing Inks**..... 11
- 8. **Canvas Printing**..... 12
  - 8.1 **Canvas Printing Methods** ..... 13
  - 8.2 **Canvas Stretching Methods**..... 13
- 9. **Graphic Design**..... 14
- 10. **Binding**..... 15
  - 10.1 **Binding Styles**..... 15
- 11. **Additional Services** ..... 17
- 12. **Products** ..... 19

# 1. PRINTERS OVERVIEW

## 1.1 GENERAL INFORMATION

<https://en.wikipedia.org/wiki/Printing>

- Printing is a process for reproducing text and images using a master form or template.
- Modern large-scale printing is typically done using a printing press, while small-scale printing is done free-form with a digital printer.
- Though paper is the most common material, it is also frequently done on metals, plastics, cloth and composite materials.
- On paper, it is often carried out as a large-scale industrial process and is an essential part of publishing and transaction printing.

## 1.2 SEO

### Keywords

○ Flyers	○ Business cards	○ Printer	○ Printing
○ Printing press	○ Printing services	○ Poster printing	○ Business card printing
○ Print shop	○ Offset printing	○ Brochure	○ Print centre
○ Digital printing	○ Printing company	○ Flyer printing	○ Commercial printers

# 2. DIGITAL PRINTING

[https://en.wikipedia.org/wiki/Digital\\_printing](https://en.wikipedia.org/wiki/Digital_printing)

### General:

- Digital printing refers to methods of printing from a digital-based image (i.e. An image from a computer) directly to a variety of media.
- It usually refers to professional printing where small-run jobs from desktop publishing and other digital sources are printed using large-format and/or high-volume laser or inkjet printers.
- Digital printing has a higher cost per page than more traditional offset printing methods, but this price is usually offset by avoiding the cost of all the technical steps required to make printing plates.
- It also allows for on-demand printing, short turnaround time, and even a modification of the image (variable data) used for each impression.

## Services Guide: Printers

- The savings in labor and the ever-increasing capability of digital presses means that digital printing is reaching the point where it can match or supersede offset printing technology's ability to produce larger print runs of several thousand sheets at a low price.

### 2.1 DIGITAL PRINTER TYPES

Note: Laser and inkjet are the two most common types, but I have also included other types that are geared toward niche markets

<http://ohsobautifulpaper.com/2011/04/the-printing-process-digital-printing/>

Type	Description	Benefits
Laser/Xerographic	<ul style="list-style-type: none"><li>○ Laser printers use laser beams, electrical particles, heat, and a plastic particle called toner to create an image</li><li>○ The image that needs to be printed is formed by selectively applying a charge to a metal cylinder called a drum. The electrical charge is used to attract toner particles. These particles are transferred to the media that is being printed on.</li><li>○ To make sure the toner is fixed properly, the substrate passes through a fuser that melts the toner into the medium.</li><li>○ Laser printers are not only used in offices but also for small run printing of books, brochures and other types of documents.</li><li>○ These printers are also used for transactional printing (bills, bank documents, etc) and direct mail.</li></ul>	<ul style="list-style-type: none"><li>○ Typically, laser printers handle type and graphics better than inkjets</li></ul>
Inkjet	<ul style="list-style-type: none"><li>○ Inkjet printers spray ink from cartridges directly onto the paper</li><li>○ Inkjet devices can print on a wide range of substrates such as paper, plastic, canvas or even doors and floor tiles.</li></ul>	<ul style="list-style-type: none"><li>○ Inkjets are better for printing photographs than laser</li><li>○ Inkjets are less expensive up front but the ink cartridges can make them more expensive in the long term.</li></ul>

## Services Guide: Printers

	<ul style="list-style-type: none"> <li>○ Inkjet printing is often used for posters and signage.</li> <li>○ It is also economical for short run publications such as photo books or small runs of books.</li> <li>○ In-line inkjet printers are sometimes combined with other types of presses to print variable data, such as the mailing addresses on direct mail pieces.</li> </ul>	
<b>Dye-sublimation</b>	<ul style="list-style-type: none"> <li>○ A printing process in which heat is used to transfer a dye onto the substrate.</li> <li>○ Dye-sub printers are mainly used for proofing and for producing photographic prints.</li> <li>○ Some can print on a variety of materials such as paper, plastic, and fabric.</li> </ul>	
<b>Direct Thermal Printing</b>	<ul style="list-style-type: none"> <li>○ In this process, heat is used to change the color of a special coating that has been applied to paper.</li> <li>○ This process is nowadays still in use in cash registers.</li> </ul>	

## 2.2 PROS AND CONS OF DIGITAL PRINTING

<http://www.bioagency.ca/what-is-the-difference-between-digital-printing-and-offset-printing/>

Pros	Cons
<ul style="list-style-type: none"> <li>○ Short turnaround time – fast and no drying time for inks</li> <li>○ Affordable, cost effective solution for small print runs under 500 copies</li> <li>○ Can be printed onto a variety of mediums including paper, glass, metal, marble</li> <li>○ Can do very large format printing exceeding 10 feet in diameter</li> <li>○ You can print out just one copy</li> <li>○ Digital printers are more readily available</li> </ul>	<ul style="list-style-type: none"> <li>○ Color consistency is not as good as offset, difficult to reproduce colors accurately</li> <li>○ Larger quantities exceeding 500 copies can be more expensive</li> <li>○ Pantone® colors cannot be reproduced</li> <li>○ Cannot reproduce metallic inks, foils or varnishes</li> <li>○ Weight and size of paper is limited in most cases</li> <li>○ Final results are limited to a semi-gloss or</li> </ul>

## Services Guide: Printers

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>○ Getting pricing is faster and does not require a formal quote from a print representative</li></ul> | <ul style="list-style-type: none"><li>○ gloss finish, not able to reproduce a matte finish very well</li><li>○ Ink is not absorbed into paper, rather it sits on top of the paper, making it more susceptible to cracking</li><li>○ Cannot produce white or light colored inks on dark papers</li></ul> |
|---|---|

## 3. OFFSET PRINTING

### General:

- A commonly used printing technique, in which the inked image is transferred (or "offset") from a plate to a rubber blanket, then to the printing surface.
- The modern "web" process feeds a large reel of paper through a large press machine in several parts, typically for several metres, which then prints continuously as the paper is fed through.
- Offset is nowadays the most widely used printing technique for an extensive range of products such as books, newspapers, stationery, corrugated board, posters, etc.
- Offset presses are fast. Modern presses can print up to 18000 sheets per hour. Such a sheet can contain up to 48 A4 (Letter sized) pages. Most common are presses that can print 8 pages at a time on a press sheet. That means such a press running at 15,000 sheets per hour can print up to 120,000 pages per hour.

### 3.1 PROS AND CONS OF OFFSET PRINTING

Pros	Cons
<ul style="list-style-type: none"><li>○ Allows the widest range of color reproduction. Bright fluorescence, Pantone®, metallics, foils and varnishes can all be produced using this method of printing.</li><li>○ Allows the most accurate color reproduction and consistency</li><li>○ A wide variety paper weights, size and textures available</li><li>○ Light inks such as white ink can be printed on dark-coloured paper</li><li>○ Adjustments to ink density can be made</li><li>○ Better quality inks can be used</li><li>○ Large print runs exceeding 200,000+ copies</li></ul>	<ul style="list-style-type: none"><li>○ Setup time is slower and more production steps are required</li><li>○ Cost of printing low quantities (under 500 copies) can be more expensive</li><li>○ You cannot just print out one copy</li><li>○ Drying time is considerable</li><li>○ Printing press machines can be fairly large and require trained personnel to work and maintain them</li><li>○ A lot more attention to detail is required to make sure that the quality of the results is acceptable</li></ul>

can be reproduced extremely quickly

### 3.2 OFFSET PRINTING PROCESS

[https://en.wikipedia.org/wiki/Offset\\_printing#Offset\\_printing\\_process](https://en.wikipedia.org/wiki/Offset_printing#Offset_printing_process)

Steps	Description
<b>1. The Inking System</b>	<ul style="list-style-type: none"><li>○ The goal of any inking system is to place a uniform layer of ink across every dimension of the printing plate.</li><li>○ The lithographic process is unique in that it requires the ink form rollers to pass in contact with the non-image areas of the plate without transferring ink to them.</li><li>○ Inking systems are made up of several elements: the ink fountain; the ink fountain roller (or ink feed roller); the ink ductor roller; the ink distribution rollers; the ink form rollers.</li><li>○ The ink fountain stores a quantity of ink in a reservoir and feeds small quantities of ink to the distribution rollers from the ink fountain roller and the ink ductor roller.</li></ul>
<b>2. The Dampening System</b>	<ul style="list-style-type: none"><li>○ The dampening system delivers water onto the offset plate covering the plate cylinder</li><li>○ Most lithographic plates function on the principle of water and ink receptive areas. In order for ink to adhere only to the image areas on the plate, a layer of moisture must be placed over the non-image areas. The dampening system accomplishes this by moistening the plate consistently throughout the press run.</li><li>○ Dampening systems are made up of several elements: the water fountain; the water fountain roller (or water feed roller); the water ductor roller in intermittent-flow dampening systems and the water slip roller in continuous-flow dampening systems; the water distribution rollers; and the water form rollers.</li></ul>
<b>3. The Plate Cylinder</b>	<ul style="list-style-type: none"><li>○ The plate cylinder transfers the ink onto the blanket covering the offset cylinder.</li></ul>
<b>4. The Offset Cylinder and Impression Cylinder</b>	<ul style="list-style-type: none"><li>○ The paper is then pressed against the offset cylinder by the impression cylinder, transferring the ink onto the paper to form the printed image</li></ul>

## 4. PHOTOCOPYING

### General:

- A photocopier (also known as a copier or copy machine) is a machine that makes paper copies of documents and other visual images quickly and cheaply.
- Most current photocopiers use a technology called *xerography*, a dry process that uses electrostatic charges on a light-sensitive photoreceptor to first attract and then transfer toner particles (a powder) onto paper in the form of an image. Heat, pressure or a combination of both is then used to fuse the toner onto the paper.
- Copiers can also use other technologies such as inkjet.

### 4.1 XEROGRAPHY PHOTOCOPYING PROCESS

<https://en.wikipedia.org/wiki/Photocopier>

Steps	Description
1. Charging	<ul style="list-style-type: none"><li>○ A cylindrical drum is electrostatically charged by a high voltage wire called a corona wire or a charge roller. The drum has a coating of photoconductive material.</li><li>○ A photoconductor is a semiconductor that becomes conductive when exposed to light</li></ul>
2. Exposure	<ul style="list-style-type: none"><li>○ A bright lamp illuminates the original document, and the white areas of the original document reflect the light onto the surface of the photoconductive drum.</li><li>○ The areas of the drum that are exposed to light become conductive and therefore discharge to the ground.</li><li>○ The area of the drum not exposed to light (those areas that correspond to black portions of the original document) remains negatively charged.</li></ul>
3. Developing	<ul style="list-style-type: none"><li>○ The toner is positively charged.</li><li>○ When it is applied to the drum to develop the image, it is attracted and sticks to the areas that are negatively charged (black areas), just as paper sticks to a balloon with a static charge.</li></ul>
4. Transfer	<ul style="list-style-type: none"><li>○ The resulting toner image on the surface of the drum is transferred from the drum onto a piece of paper with a higher negative charge than the drum.</li></ul>
5. Fusing	<ul style="list-style-type: none"><li>○ The toner is melted and bonded to the paper by heat and pressure rollers.</li></ul>

## 4.2 INKJET PHOTOCOPYING PROCESS

<http://techin.oureverydaylife.com/difference-between-inkjet-copier-photocopier-28636.html>

Steps	Description
1. Ink Transfer	<ul style="list-style-type: none"><li>○ The most common method found in modern inkjet printing is “drop on demand,” which is much like turning a tiny hose on and off approximately 5,000 times a second.</li><li>○ The two common DOD technologies are thermal and piezoelectric.<ul style="list-style-type: none"><li>● Thermal printing heats the ink to create a bubble, which then bursts and hits the paper.</li><li>● Piezoelectric technology uses a crystal that flexes when a small electrical charge passes through it, forcing a drop of ink onto the paper.</li></ul></li></ul>

## 5. LARGE-FORMAT PLOTTER PRINTING

### General

- Provides you with the flexibility to quickly scan and print wide format documents
- Generally accepted to be any computer-controlled printer that supports a maximum print roll width of between 18" and 100". Printers with capacities over 100" wide are considered Super Wide or Grand format.
- Wide format printers are used to print banners, posters, trade show graphics, wallpaper, murals, backlit film, vehicle image wraps, electronic circuit schematics, architectural drawings, construction plans, backdrops for theatrical and media sets, and any other large format artwork or signage.
- Wide format printers usually employ some variant of inkjet technology to produce the printed image, and are more economical than other print methods such as screen printing for most low quantity print projects, depending on print size, quantity of prints per single original, and the type of print medium.
- Wide format printers are usually designed for printing onto a roll of print media that feeds incrementally during the print process, rather than onto individual sheets.

### 5.1 TYPES OF WIDE-FORMAT PRINTERS

[https://en.wikipedia.org/wiki/Wide-format\\_printer](https://en.wikipedia.org/wiki/Wide-format_printer)

Type	Description
<b>Aqueous</b>	<ul style="list-style-type: none"> <li>○ Pigment is held in a non-reactive carrier solution that is sometimes water and other times a substitute liquid.</li> <li>○ Aqueous ink generally comes in two flavors, Dye and UV (alternatively known as pigment).</li> <li>○ Dye ink is a high color, low UV-resistant variety that offers the widest color gamut. Finished prints using dye inks must be laminated to protect them if they are to be used outdoors.</li> <li>○ UV ink is generally duller in color but withstands fading from UV rays.</li> <li>○ Various substrates (media) are available, including canvases, banners, metallized plastic and cloth. Aqueous technology requires that all materials be properly coated to accept and hold the ink.</li> </ul>
<b>Solvent</b>	<ul style="list-style-type: none"> <li>○ This term is used to describe any ink that is not water-based.</li> <li>○ "Eco-Solvent" inks are slower drying. The resulting prints are waterproof.</li> <li>○ May be used to print directly on uncoated vinyl and other media as well as ridged substrates such as painted/coated metal, foam board and PVC.</li> <li>○ The solvents soften the base material and allow the ink pigments to mechanically latch on to the chemically etched surface.</li> <li>○ Solvent ink prints are more durable than aqueous inks, however solvent inks give off strong odor (fumes) when drying</li> <li>○ There are various levels of solvent ink ranging from "True or Full Solvent" to "Medium/Mild Solvent" all the way down to "Eco-Solvent". The fume and odour levels decrease accordingly, so does the surface etch of the base material.</li> </ul>
<b>Dye Sublimation</b>	<ul style="list-style-type: none"> <li>○ Inks are diffused into the special print media to produce continuous-tone prints of photographic quality.</li> </ul>
<b>UV</b>	<ul style="list-style-type: none"> <li>○ Piezo inkjet printers whose inks are UV-curable (Dry when cured with UV light). The resulting prints are waterproof, embossed &amp; vibrant.</li> <li>○ Any media material can be used in this technology, polymer made media are best.</li> <li>○ Ceramics, glass, metals, and woods are also used with printing with this technology.</li> </ul>
<b>Pen/Plotter</b>	<ul style="list-style-type: none"> <li>○ A pen is used to draw on the print substrate.</li> <li>○ Mainly used for producing CAD drawings.</li> <li>○ Generally being superseded by digital technologies such as Solvent, Aqueous, and UV.</li> </ul>

## 6. TYPESETTING

<http://www.manortypesetting.com/>

<http://www.eastvangraphics.ca/photography-typesetting.shtml>

<http://www.wmpub.ca/05-services.htm>

<http://www.designersinsights.com/designer-resources/learn-to-typeset-like-a-true-print-designer/> - this page demonstrates basic typesetting skills

### General

- Typesetting is the composition of text by means of arranging physical types or the digital equivalents.
- Since almost all text is produced digitally now, typesetting generally involves graphic design and typeface styling for manuscripts, brochures, invitations, cards, etc. (rather than composing words out of cast metal or word sorts)
- If you are submitting a manuscript to a publishing house, a typesetter will:
  - Polish your presentation
  - Do the internal page setting, suggest different typestyles you might choose for the book cover and inside pages, including kerning (spacing) of difficult letter pairs ("r" and "n"; "c" and "l"; "o" and "o", etc.)
  - Take any cover design and turn it into camera-ready pages, including colour separations if your cover is being printed with more than one colour of ink.
  - Handle any graphics required for your project including ones in colour.
  - Offer a dummy copy of your book for editing.
- Companies may also offer typesetting (in terms of formatting for different characters) for translated text

## 7. SCREEN PRINTING (SERIGRAPHY)

### General

<http://www.printmojo.com/screenprinting101.php>

[https://en.wikipedia.org/wiki/Screen\\_printing](https://en.wikipedia.org/wiki/Screen_printing)

- It can be used to print on a wide variety of substrates, including paper, paperboard, plastics, glass, metals, fabrics, nylon and cotton.
- Some common screen printed products include posters, labels, decals, signage, and all types of textiles and electronic circuit boards.
- The advantage of screen printing over other print processes is that the press can print on substrates of any shape, thickness and size. A greater thickness of the ink can be applied to the substrate than is possible with other printing techniques as well.

## Services Guide: Printers

- Until relatively recently all screen printing presses were manually operated. Now, however, most commercial and industrial screen printing is done on single and multicolor automated presses.

### 7.1 SCREEN PRINTING PROCESS

<https://www.youtube.com/watch?v=K067Nukkc9U>  
<http://www.printmojo.com/screenprinting101.php>

Steps	Description
1. Artwork Setup	<ul style="list-style-type: none"><li>○ A digital file of the image being printed is provided by the client</li><li>○ Each colour from the image is separated into multiple different transparencies (red, yellow, blue, green turquoise, white, etc.) using an imaging program. Each colour is printed in half tones (dots) that create different shades for each colour</li></ul>
2. UV Exposure	<ul style="list-style-type: none"><li>○ Each transparency is individually placed on an exposure unit with a screen, where it will be exposed to UV light</li><li>○ The UV light hardens the exposed emulsion on the screen, leaving the areas blocked by the image still capable of being washed out</li></ul>
3. Washing	<ul style="list-style-type: none"><li>○ The “burned” screen is taken to the wash-out area to wash away the unexposed areas of the screen that were blocked by the transparency</li><li>○ This is done with a pressure washer at around 1300 psi</li></ul>
4. Screen Setup and Printing	<ul style="list-style-type: none"><li>○ The screens are individually put into the printing machine over a piece of transfer paper</li><li>○ Different colours of paint are pulled across the corresponding screens from each different colour transparency with a squeegee, onto the same piece of transfer paper or material</li></ul>
5. Curing	<ul style="list-style-type: none"><li>○ The final product is then run through a dryer to cure the ink</li></ul>

### 7.2 TYPES OF SCREEN PRINTING PRESSES

<http://www.pneac.org/printprocesses/screen/moreinfo18.cfm>

Type	Description
------	-------------



**Flatbed**

- Flat-bed and cylinder presses are similar in that both use a flat screen and a three step reciprocating process to perform the printing operation.
- The screen is first moved into position over the substrate, the squeegee is then pressed against the mesh and drawn over the image area, and then the screen is lifted away from the substrate to complete the process.
- With a flat-bed press the substrate to be printed is positioned on a horizontal print bed that is parallel to the screen.
- With a cylinder press the substrate is mounted on a cylinder.



**Cylinder**



**Rotary**

- Rotary screen presses are designed for continuous, high speed web printing.
- The screens used on rotary screen presses are seamless, thin metal cylinders.
- The open-ended cylinders are capped at both ends and fitted into blocks at the side of the press.
- During printing, ink is pumped into one end of the cylinder so that a fresh supply is constantly maintained.
- The squeegee is a free-floating steel bar inside the cylinder and squeegee pressure is maintained and adjusted by magnets mounted under the press bed.
- Rotary screen presses are most often used for printing textiles, wallpaper, and other products requiring unbroken continuous patterns.

## **7.3 TYPES OF SCREEN PRINTING INKS**

<http://www.pneac.org/printprocesses/screen/moreinfo20.cfm>

Type	Description
UV Curable	<ul style="list-style-type: none"><li>○ UV curable inks consist of liquid prepolymers, monomers, and initiators which upon being exposed to large doses of U.V. radiation, instantly polymerize the vehicle to a dry, tough thermosetting resin.</li><li>○ They also require less energy, overall, to dry or "cure" compared to gas or electric driers.</li><li>○ The downside of UV inks is they can cost as much as three times that of regular inks and must be handled differently than conventional inks due to safety issues. Additionally, solvents are required for clean-up which results in some VOC emissions.</li></ul>
Plastisol Inks	<ul style="list-style-type: none"><li>○ Plastisol inks (both solvent and water based) are used in textile screen printing.</li></ul>
Solvent & Water Inks	<ul style="list-style-type: none"><li>○ Solvent and water based screen printing inks are formulated with primarily solvent or water.</li><li>○ The solvent evaporates and results in VOC emissions.</li><li>○ Water based inks, though they contain significantly less, may still emit VOC's from small amounts of solvent and other additives blended into the ink. The liquid waste material may also be considered hazardous waste.</li></ul>

## 8. CANVAS PRINTING

### General:

[https://en.wikipedia.org/wiki/Canvas\\_print](https://en.wikipedia.org/wiki/Canvas_print)

- A canvas print is the result of an image printed onto canvas which is stretched, or gallery-wrapped, onto a frame and displayed.
- Canvas prints are often used in interior design, with stock images, or customised with personal photographs. Canvases are a beautiful way to display your photography or artwork.
- Canvas prints are often intended to reproduce the look of original oil or acrylic paintings on stretched canvas.
- Printed canvas for wall art generally weighs around 400gsm and should be 100% pure white cotton for a more exact colour representation
- After the image is printed, the canvas is trimmed to size and either glued or stapled to traditional stretcher bars, or a wooden panel
- Frames are usually constructed from solid pine and underpinned for added strength, and they may be 3/4" deep, 1.5" deep or 2" deep

## 8.1 CANVAS PRINTING METHODS

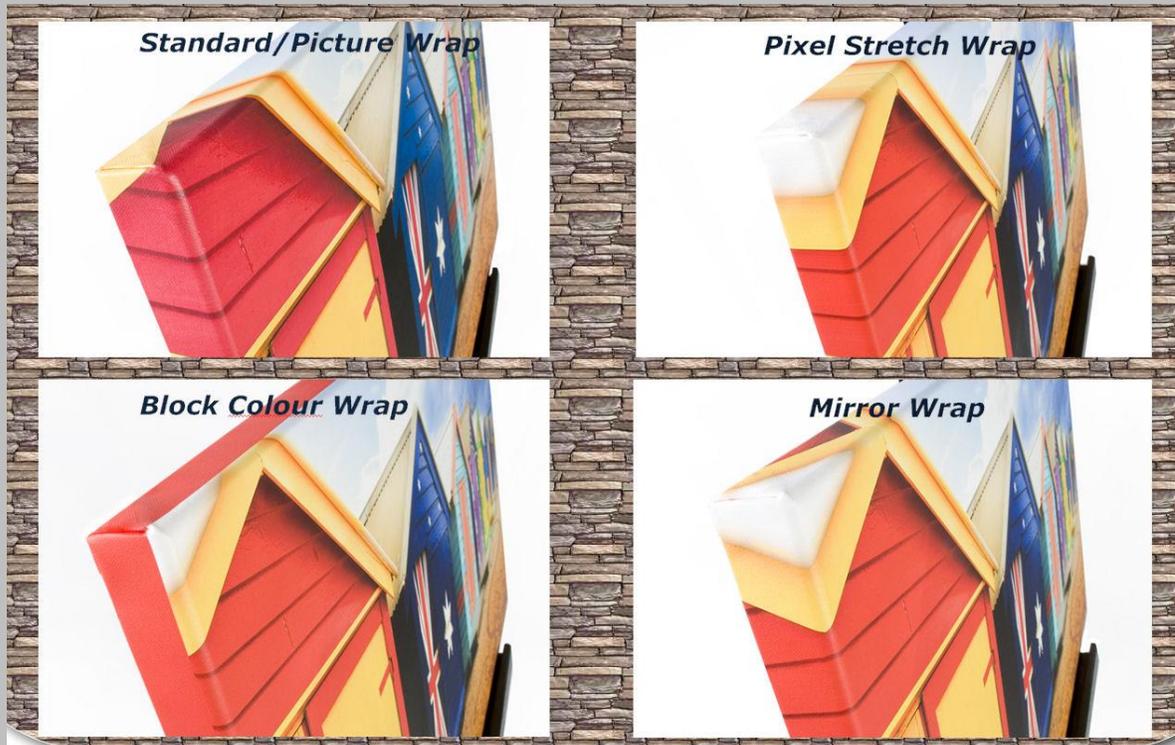
Method	Description
<b>Offset Printing</b>	<ul style="list-style-type: none"><li>○ Reproductions of original artwork have been printed on canvas using offset printing for many decades</li><li>○ Since the 1990s, canvas print has been associated with either dye sublimation or inkjet print processes</li><li>○ The canvas print material is generally cotton or plastic based poly canvas, often used for the reproduction of photographic images</li></ul>
<b>Large Format Printing</b>	<ul style="list-style-type: none"><li>○ Modern large format printers are capable of printing onto canvas rolls measuring 1.5 metres (59 in) or more.</li></ul>

## 8.2 CANVAS STRETCHING METHODS

[http://www.thecanvasartfactory.com.au/store/pages/Wrapping-Options-\(for-your-edges\).html](http://www.thecanvasartfactory.com.au/store/pages/Wrapping-Options-(for-your-edges).html)

Method	Description
<b>Mirror Wrap</b>	<ul style="list-style-type: none"><li>○ Your photo's edges are mirrored on each edge so that none of your photo is lost from the front of the canvas</li></ul>
<b>Gallery (also called Standard) Wrap</b>	<ul style="list-style-type: none"><li>○ The edges of the image are pulled around the side of the frame so you lose that part of the image</li><li>○ It's important that the subject of the photo going on the canvas is not too close to the edge, as you'll lose between 20mm and 40mm from each edge of your photo</li></ul>
<b>Block Colour Wrap</b>	<ul style="list-style-type: none"><li>○ Gives you solid colour on each edge of your canvas</li><li>○ The company may have a standard colour they use (like black or white), they'll let you choose a colour, or they'll choose one for you that matches your photo.</li><li>○ With this option you are not losing any of your photo from the front of the canvas</li><li>○ Most companies don't bevel their frames so the image meets the block colour on the hard edge, but some will have the image wrap slightly around the edges</li></ul>
<b>Pixel Stretch Wrap</b>	<ul style="list-style-type: none"><li>○ Colours from the outermost border of your photo are stretched around the edge so that the colours extend around the edges of the frame</li></ul>

- Again you don't lose any of your photo from the front of the canvas



## 9. GRAPHIC DESIGN

### General:

- Graphic design typically covers design, illustration and project management for: conference materials, annual reports, advertising, books, brochures, catalogues, e-blasts, invitations, newsletters and posters (in print or electronic format).
- Graphic designers will also provide design and finished art for brand development, including: logos, wordmarks, web banners, stationery, signage, trade show informational signs, large format posters, direct mail pieces and digital signage.

# 10. BINDING

## 10.1 BINDING STYLES

<http://www.linxprint.com/products/binding-finishing/#toggle-id-2>

<http://desktoppub.about.com/od/finishing/g/perfectbind.htm>

[https://en.wikipedia.org/wiki/Coil\\_binding](https://en.wikipedia.org/wiki/Coil_binding)

[https://en.wikipedia.org/wiki/Comb\\_binding](https://en.wikipedia.org/wiki/Comb_binding)

[https://en.wikipedia.org/wiki/Bookbinding#Hardcover\\_binding](https://en.wikipedia.org/wiki/Bookbinding#Hardcover_binding)

Style	Description
 <b>Saddle Stitch</b>	<ul style="list-style-type: none"><li>○ Magazine style finishing with two staples at the spine.</li><li>○ This type of binding works best for page counts up to 60</li><li>○ It is a cost-effective binding method</li></ul>
 <b>Perfect Binding</b>	<ul style="list-style-type: none"><li>○ Perfect binding involves collating all the pages or signatures of a book, roughening and flattening the edge of the spine area, and then applying a flexible adhesive and attaching a paper cover to the spine.</li><li>○ Paperback novels are one example of perfect binding.</li><li>○ Compared to other binding methods, perfect binding is durable and has a low-to-medium cost.</li><li>○ It can be used with publications that are several inches thick.</li><li>○ A perfect bound book has a flat spine.</li></ul>
 <b>Wire Binding</b>	<ul style="list-style-type: none"><li>○ A popular commercial book binding method</li><li>○ Punched pages are inserted into a "C" shaped spine and then the spine is closed until it's round.</li><li>○ Documents that are bound with wire binding will open completely flat and allow for 360 degree rotation of bound pages.</li></ul>



**Spiral/Coil Binding**

- A commonly used book binding style for documents.
- Documents bound with a spiral coil can open flat on a desk or table and offer 360 degree rotation for easy note taking.
- This binding style is durable and is often used for documents that need to be mailed.
- Spiral coil binding spines are also available in more colors and sizes than other binding styles.
- Most users purchase spiral coils in twelve inch lengths. The spine is inserted onto an eleven-inch document and the excess length of coil is cut and crimped at each end of the book. However, the forming process for creating spiral coil binding elements allows them to be created in virtually any length.
- Many print shops choose to purchase coils in 36-inch lengths in order to have the flexibility to bind custom document sizes and to reduce waste.



**Cerlox/Comb Binding**

- This method uses round plastic spines and a hole puncher that makes rectangular holes.
- To bind a document, holes are first punched into the paper with a specialized hole punch/paper drilling machine. A machine opens the rings on the spine and inserts them into the holes in the page. The rings then rest against the body of the spine, resulting in a closure that can be opened again for making changes to the book.
- With this bind, the book lies flat but cannot be opened 360 degrees.



**Hardcover Binding**

- A hardcover book has rigid covers and is stitched in the spine. Looking from the top of the spine, the book can be seen to consist of a number of signatures (a section of the book, basically one large page folded multiple times) bound together. When the book is opened in the middle of a signature, the binding threads are visible.
- There are many different hardcover binding methods, but the most common is case binding. The pages are arranged in signatures and glued together into a "text block." The text block is then attached to the cover or "case" which is made of cardboard covered with paper, cloth, vinyl or leather.
- Other types of hardcover binding are:
  - Over sewing
  - Sewing through the fold
  - Double-fan adhesive binding

## 11. ADDITIONAL SERVICES

[https://en.wikipedia.org/wiki/Foil\\_stamping](https://en.wikipedia.org/wiki/Foil_stamping)

<https://www.formaxprinting.com/laminated-printing>

<http://ohsobautifulpaper.com/2012/01/the-printing-process-die-cutting/>

<http://www.ottoprinting.com/beveling.html>

<http://www.printingforless.com/Custom-Embossing-Services.html>

<http://www.printingbyheartland.com/raised-printing.html>

Type	Description
<b>Digital File Transfer</b>	<ul style="list-style-type: none"><li>○ Print shops provide digital file transfer options like ftp sites, dropbox/box accounts, google drive, etc.</li></ul>
<b>Cutting/Trimming</b>	<ul style="list-style-type: none"><li>○ Print shops provide paper cutting/trimming services for paper and projects</li><li>○ Anything you print should be printed with bleed room (colour that extends past your pre-determined size), then cropped inside this bleed to prevent slivers of white along your crop lines where the paper cutter didn't line up exactly with the edge of your image or background colour.</li></ul>
<b>Foil Stamping</b>	<ul style="list-style-type: none"><li>○ The application of metallic or pigmented foil onto a solid surface by application of a heated die onto foil, making it permanently adhere to the surface below, leaving the design of the dye.</li></ul>
<b>Lamination</b>	<ul style="list-style-type: none"><li>○ The lamination process applies a clear plastic film to printed pieces. The clear film can be glossy or matte.</li><li>○ Printed pieces are laminated to protect them from stains, smudges, moisture, grease, tears and anything else that might shorten their useful life.</li><li>○ In addition to protection, print lamination adds strength and rigidity.</li><li>○ Printing that is handled frequently is often laminated, such as restaurant and bar menus, price lists, maps, educational materials, bookmarks, membership cards, etc.</li></ul>
<b>Shrink Wrapping</b>	<ul style="list-style-type: none"><li>○ Shrink wrap machines are used for securing or bundling multiple products at a time using multiple layers of a polymer plastic compound, also known as "shrink wrap."</li></ul>
<b>Die Cutting</b>	<ul style="list-style-type: none"><li>○ Die-cutting is a process used in many different industries to cut a thin flat material (in our case, paper) into a specific shape using a steel cutting die.</li><li>○ It can be used to punch out a decorative shape or pattern to incorporate</li></ul>

	<p>within a larger piece, or it can be used to create the main shape of an object by cutting the entire sheet of paper in a distinct/designed way.</p> <ul style="list-style-type: none"><li>○ More simply put: it's a way of making a hole in paper in a desired shape using the same presses that shops use for letterpress printing.</li><li>○ Like letterpress, a die-cut element draws attention to the 3D nature of paper and the character of the material itself. Shops mostly use die-cutting as a feature – taking an industrial process and turning it into a design element.</li><li>○ Print shops usually have dies in stock for many common products, including presentation folders, door hangers, report cover windows, cd cases, etc.</li></ul>
<b>Bevel Cutting</b>	<ul style="list-style-type: none"><li>○ The term beveling refers to the technique of taking a heavy, thick paper and cutting the edges at a 45° angle.</li><li>○ After determining the finished size, shape, substrate and thickness, the bevel edge is individually and meticulously cut on each sheet.</li><li>○ The corners can be left square or they can be rounded. Rounded beveled corners tend to be easier to insert in envelopes and are less susceptible to nicks and damage during mailing.</li><li>○ Choosing the right paper on which to bevel depends on the final desired effect. The thicker the paper the more of the bevel will show.</li></ul>
<b>Embossing</b>	<ul style="list-style-type: none"><li>○ Embossing is the process of creating raised relief images and designs in paper and other materials.</li><li>○ Embossing uses a specially-made die under high pressure to form a raised three-dimensional impression that allows you to literally feel the design.</li><li>○ It is a graceful effect that brings a touch of class to your piece.</li><li>○ Embossing can be used on its own or in combination with 4-color printing or foil stamping</li></ul>
<b>Raised Printing</b>	<ul style="list-style-type: none"><li>○ Thermography is a process which results in raised print.</li><li>○ Ink that has gone through the press and is still wet is dusted with fusing powder and heated to produce raised or embossed print.</li><li>○ Thermography is sometimes referred to as poor man's engraving because the effect it creates is quite similar to engraving.</li></ul>

## 12. PRODUCTS

Print shops may carry a range of printing-related products. Some common products print shops carry include:

- Banners
- Business Cards
- Booklets
- Bookmarks
- Blueprints
- Door Hangers
- Envelopes
- Flyers
- Greeting Cards
- Invoices
- Labels
- Letterhead
- Notepads
- Postcards
- Posters
- Rack cards
- Signs
- Stamps
- Stickers
- Tickets