

fact sheets

the farmout guide to everything you wanted to know about design but were too afraid to ask

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Key Design Facts

Processes of Design

Concept Development

The process of researching and drafting initial creative concepts.

Concept Refinement

Refining and exploring in greater depth the initial design concept following feedback from the client and internal consultants.

Typesetting

The process of formatting text and images in a layout.

Unplanned Changes

Any changes made that are outside the quoted number of drafts.

Artwork

The process of preparing a document to be released to the printer. Including:

- checking and refining image quality and alignment of elements
- setting up the file with bleed
- colour correction
- collecting fonts and images used in the document
- printing a proof for internal use
- marking up specifications on the proof for the printer
- burning to disk.

Also called finished art.

Fonts for Design

Font Ownership

Fonts are licensed, you can only use fonts you own.

Restrictions apply to copying font software to be used by a service provider. You are required to comply with applicable copyright law and the terms of your license agreement. Most license agreements provide that you may take a copy of the font(s) you have used for a particular file to a commercial printer or other service provider, and the provider may use the font(s) to process your file.

Font Formats

Fonts are available in three different formats: PostScript®, TrueType® and OpenType®.

PostScript® and TrueType® fonts do not readily transfer between PC and Macintosh platforms.

OpenType® is the unification of PostScript® and TrueType®, into a single font format. As a result, OpenType® fonts are readily transferable between PC and Macintosh platforms.

Farmout uses Macintosh in its design department.

Font Styles

Serif

The small terminal stroke at the end of the main stroke of a letter.

Sans serif

A type face without serifs which usually has no stroke contrast.

F

Serif
(Times)

F

Sans serif
(Helvetica)

Images for Design

Image Resolution

For print, images supplied must be at high resolution, 300dpi at the final 100% size in which they are used in the layout. These are usually provided in 'tiff' format.

Low resolution images (ie. 72dpi) will print with jagged edges and appear fuzzy. 72dpi resolution images are suitable only for use on the web.

Preferred File Formats

The best file formats are ones that do not lose colour, quality, contrast or file size.

TIFF or EPS

These files are known as *loss/less* file formats. They do not lose any information. All images and logos should be supplied in either TIFF or EPS formats.

Logos or graphic elements should be eps or ai (adobe illustrator) vector files. Vector files have a smooth edge at any scale.

JPEG or GIF

These files are known as *lossy* file formats. They are not good for print and become more jagged when saved over and over again.

Image Colour

All images to be used in print should be supplied as CMYK.

Images that are to be used on the web should be supplied as RGB.

Refer to glossary for definitions of CMYK and RGB.

Image editing

Deep etching

The etching or removal of any unwanted areas (e.g. background) from an image. It generates a cut-out image of the photographed product.

Colour correction

The adjustment of colours in a photograph to ensure that they accurately represent the original product photographed.

Image manipulation

The altering of an image. For example, removing, moving or adding elements to create a new image.



300dpi
Image is crisp and clear



72dpi
Image is fuzzy with jagged edges



EPS format (300dpi)
Logo is crisp and clear



JPEG format (300dpi)
Logo has jagged edges

design facts

Key Printing Facts 1

Processes of Printing

Digital Printing

The term used to describe any printing technique which does not involve the generation of film to print e.g. inkjet, laser print. It is generally more cost effective for short print runs. The image quality and colour may be inconsistent however.

Offset Printing

The most common commercial printing method in which ink is transferred from the printing plate to a rubber roller, then to paper. It produces a flat image and is cost effective for large print runs. The image produced is of a consistent quality.

Computer to plate (CtP)

Computer-to-plate is the process of transferring digital data from computers directly onto printing plates, hence the term computer-to-plate. This process eliminates the need for film and chemical proofs by utilising PDF files. Digital proofs are produced for colour matching.

The benefits to the client flow directly from:

- increased print quality
- faster job turnarounds
- faster preparation for printing and
- a reduction in time and materials used.

Proofing

The examination of a proof supplied by the printer to check that no elements have been altered in the plate set up and that the plates are aligning properly to correctly produce the finished printed image. This stage happens before the plates are set up on the press.

Cromalin Proofs

The industry standard in colour proofing when jobs are to be printed using film and plate technology. Recognisable by their appearance, they are printed on a thick, glossy stock with colour bars and proofing marks.

Digital Proofs

These proofs are generated from files and printed on laser technology. Refer to digital printing.

Press Checks

The examination of the first printed sheets from the press to check for any printing problems that may need to be resolved before full production takes place.

Colours for Printing

Pantone Matching System (PMS) or Spot Colours

A spot or PMS colour is an international colour coding system for special premixed ink to create a consistent colour. Use spot colours when few colours are specified and colour accuracy is critical.

Each spot colour requires an additional printing plate for a printing press, thereby increasing your printing costs. Spot colours do not apply to digital printing.

CMYK - 4 Colour Process

Cyan (C), magenta (M), yellow (Y), and black (K) are the four basic colours of ink used in digital or offset colour printing.

Images for Print

Refer to *images for design* on Farmout's Key Design Fact sheet 1.

Specialised Print Finishes

Die-cutting

The process of using specially designed cutting tools to create custom shapes or cutouts in printed materials.

Foiling

Foil stamping uses heat and a heat activated foil to impart an image onto the surface.

Embossing/Debossing

Embossing leaves an image raised on the surface of the sheet.

Debossing leaves an image indented on the surface

Varnishing

A varnish is an unpigmented ink film applied to the unprinted sheet or over-varnished onto ink already applied. Varnish may be an overall application or spotted only onto the inked areas, (spot varnish).

Overall varnish is recommended for sealing a job. Varnish may be gloss, matt or satin.

Celloglazing

Coating used on paper to enhance its appearance and durability. Can only be used with solid or strip coverage, not in 'spot' applications. A similar process to laminating, it is most commonly used on covers and folders. It is available in gloss or matt applications.

printing facts

Key Printing Facts 2

Processes of Folding

Gate Fold

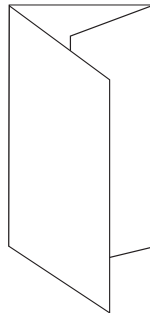
A term used when both sides of an oversize page fold into the gutter in overlapping layers.

Concertina

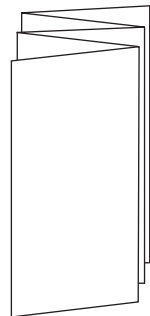
A term used for two or more parallel folds, which open like a concertina.

Roll fold

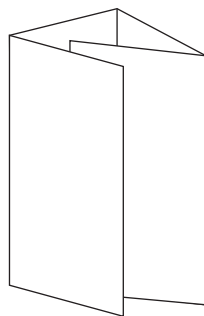
A term used for 3 or more panels which fold in on each other.



Gate Fold



Concertina Fold



Roll Fold

Processes of Binding

Spiral Binding

Made of either plastic or wire, spiral binding allows the printed document to lie flat and to double over. You cannot add pages to documents once they are spiral bound.

Saddle-Stitching

A method of stitching together documents; they are opened over a saddle-shaped support and stitched through the back. Saddle stitching is a good choice for binding documents with not many pages.

Perfect Binding

A process whereby single sheets are stacked together, the binding edge is ground to create a rough surface, and adhesive is applied. A cover is then wrapped around the pages. Perfect binding is well suited for use with books, thick magazines and annual reports.

Burst Binding

A method in which the sections are 'burst' by being punched through the spine to allow the adhesive to link the paper in each section, and the sections to each other. Burst binding is more durable than perfect binding because glue is rolled onto the spine and forced through the perforations so that the book is securely held together.



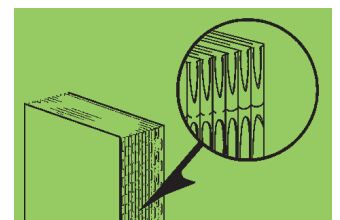
Spiral Binding



Saddle-Stitching



Perfect Binding



Burst Binding

printing facts

Key Paper Facts

Qualities of Paper

Paper Thickness

Is measured in grammage/gsm (Grams per Square Metre).

For everyday use 80gsm is a commonly used weight, however 100gsm is more appropriate for external communication such as company letterhead or presentations.

Cover Stock (Card)

Card paper that is heavyweight, typically 160gsm or above, coated or uncoated paper with good folding characteristics. Its diverse uses include folders, booklet covers, brochures and pamphlets.

160gsm is normally the heaviest weight you can use with most inkjet and laser printers. Check your printer manual for full details.

Typical usage by weight

80gsm	copy/fax laser paper
90-130gsm	letterheads stationery brochures flyers
200gsm and up	cover stock folders business cards

Finishes of Paper

Coated paper

Paper that has received a special coating during the manufacturing process for maximum smoothness. The coating can be dull, gloss, matte, or other finishes. Coated paper generally produces sharper, brighter images and has better reflectivity than uncoated paper. As such coated paper is especially suited to brochures and other marketing literature.

Matte finish – A coated paper finish that is flat, not shiny like a gloss. A matte paper is good for copy with a lot of text because the low gloss makes it easier to read.

Gloss finish – A coating on paper that provides a higher reflection of light which results in a shiny appearance. Gloss coatings reduce ink absorption, which allows excellent contrast and colour definition.

Satin finish – Paper that has had a smooth finish applied.

Uncoated paper

Paper that does not have any kind of coating applied. Uncoated paper is available in many different finishes, colours, and weights and is generally more absorbent than coated papers. It is fine for most office applications, except when you need colour to really stand out. Examples of uncoated paper include: copy paper, art boards, labels, low grade printing such as books and manuals.

Speciality paper

Uncoated stock for design use, such as brochures, stationery and invites. Examples of speciality paper include: tracing paper, textured paper and card.

Paper sizes

The A series of sizes uses a parent sheet AO 841x1189 mm, a sheet with an area of 1 square metre and the sides in proportion of the square root of two. This proportion was selected so when the sheet is folded or cut in two the sides are still in the same proportion. Sixteen A4 sheets can be cut exactly from an AO sheet.

A Series Formats	
4A0	1682 x 2378
2A0	1189 x 1682
AO	841 x 1189
A1	594 x 841
A2	420 x 594
A3	297 x 420
A4	210 x 297
A5	148 x 210
A6	105 x 148
A7	74 x 105
A8	52 x 74
A9	37 x 52
A10	26 x 37

Envelope Sizes

Formats	Size (mm)
C6	114 x 162
DL	110 x 220
C5	162 x 229
C4	229 x 324
C3	324 x 458
B6	125 x 176
B5	176 x 250
B4	250 x 353
E4	280 x 400

paper facts

Glossary 1

Archival Paper

Acid-free paper made to resist deterioration for documents that must last and meet special specifications.

Bleed

An image that is printed to the edges of a page, or the ability of a press or printer to print an image to the edges of a page. A full bleed document is printed on a larger sheet and is trimmed to size, since ink or toner would foul press cylinders or belts if it actually extended off the edges of the paper. Printers typically charge more for bleeds because more paper is required.

CMYK

Cyan, magenta, yellow and black are the process colours of toner or ink used in offset and digital printing. The colours overlap and appear to mix visually to reproduce a complete spectrum of colours.

Coated Paper

Made with a surface coating, which allows for maximum smoothness and ink holdout in the printing process. Coated papers are available in a range of finishes from dull to matte, and gloss.

Concertina fold

A term used for two or more parallel folds, which open like a concertina.

Copy fitting

In composition, the calculation of how much space a given amount of copy will take up in a given size and typeface. Also, the adjusting of the type size to make it fit in a given amount of space.

Cover Paper

Also called card stock, these papers are heavyweight coated or uncoated paper with good folding characteristics. Their diverse uses include folders, booklet covers, brochures and pamphlets.

Crash fold

A term used for a loose fold in a document which is not part of the document structure/layout, but used so that the document can fit into an envelope.

Digital colour proof

An off-press colour proof produced from digital data without the need for separation films.

Digital Printing

Printing in which an image is applied to paper or another substrate directly from a digital file rather than using film and/or plates.

DPI (Dots Per Inch)

A measure of the resolution of a screen image or printed page.

Dummy (Mockup)

Carefully assembled pages of actual paper stock represent exact form of final printed piece. Helps printer and client visualise written specifications.

Duotone

Two-colour halftone reproduction from black and white original.

Fold marks

In printing, dotted lines placed on a layout to indicate where the document will fold.

Gate fold

A term used when both sides of an oversize page fold into the gutter in overlapping layers.

GSM (Grams per Square Metre)

A measure of the weight, or thickness, of paper stock. The higher the number the thicker the stock, for example 300gsm describes card while 80gsm is standard photo copy paper thickness.

Imposition

The arrangement of pages on a press sheet so they are in the proper order when folded.

Ink-jet

A type of printer that sprays droplets of ink onto paper to form an image.

Laser Paper

Very smooth, low-moisture papers manufactured in cut sizes for laser printers and photo copy equipment. Low moisture prevents paper curling from high heat in laser printers. Note: If your job is designed to run through a laser printer, you should specify laser-compatible offset inks.

Laser Printer

A desktop printer, which uses a laser beam to create an image on a photoconductive drum. Dry toner is attracted to the charged area and is fused to paper with heat and/or pressure.

Lithography

Method of printing using plates whose image areas attract ink and whose non-image areas repel ink.

Moiré patterns

Moiré pattern is a visual perception that occurs when viewing a set of dots that is superimposed on another set of dots, where the sets differ in relative size, angle, or spacing. The moiré effect degrades the quality and resolution of graphic images. Problems occur when a printed image is directly scanned and then the photograph is reprinted in 4 colour process. The fine matrix of dots in the original image almost invariably conflicts with the matrix of dots in the reproduction. This generates a characteristic criss-cross pattern on the reproduced image. This is why images must be scanned from original photos or transparencies.

Offset Paper

Uncoated paper designed for use in offset lithography. Important properties include good internal bonding, high surface strength, dimensional stability, lack of curl, and freedom from foreign surface material.

Opacity (ISO)

Measure of the percentage of light passage through a sheet of paper. The more opaque a paper is, the less show-through there will be from printing on the sheet below. Basic weight, brightness, type of fibres, fillers, coatings and formation all influence opacity. Generally, opacity and brightness are inversely related to each other: the brighter the paper, the less opaque. Other factors that affect opacity are bulk, surface smoothness and shade.

glossary

Glossary 2

Pantone (PMS) colour

System of colour matching designed to ensure that colour output will be the colour intended whether on-screen or in output from a printer.

PDF (Portable Document Format)

A file format which allows a file created on one computer platform to be viewed and printed intact by computer users on a number of different platforms.

Perfect Binding

Bindery method where all pages are trimmed to single sheets. They are clamped together and a cover is wrapped around the spine. The pages are attached to the cover using an adhesive.

PostScript

A page description language that describes in detail how images and text on a printed page should look.

PPM

Pages per minute.

Ream

500 sheets of paper.

Recycled Paper

Paper which meets minimum reclaimed content standards established by federal, state and local governments and the paper industry. Fibre content usually consists of post-consumer and pre-consumer reclaimed fibre plus virgin pulp. Uniform content standards (percentage of virgin and recycled pulp, proportion of post-consumer and pre-consumer recovered fibre) have not been established universally.

Registration marks

In printing, marks placed on a document so that the printing plates can be aligned or registered accurately.

RGB (Red, Green, Blue)

Additive, primary colours used in all screen applications.

Roll fold

A term used for 3 or more panels which fold in on each other.

Set Off

Also called offset. Transferring or smearing of ink from freshly printed press sheets to another surface.

Stock

Paper or other material to be printed.

Tints

Various even tone areas (strengths) of a solid colour.

Trap

How well a printed ink can accept the next ink printed onto it compared with how well blank paper accepts that ink. The thickness of ink application; the drying time of that ink; the printing ink sequence; and the settings of the press all affect trap.

Trapping

The process of overlapping two adjoining colours in an image to compensate for misregistration which causes potential gaps between colours in artwork. There is usually some debate about who should handle trapping, the designer or the printer - so it's important to discuss the matter before any files are created.

Trim marks

In printing, marks placed on the edge of the page, used for alignment when trimming the document to final size.

Variable Imaging/Data

Printing or the ability to print different text and/or images on each sheet of paper that runs through a printer or press. Both the press and the software driving it must be able to offer this capability in order for the process to work.

Varnishing

There are four usual ways of varnishing:

- Machine – carried out on the litho machine and puts down a very thin layer of varnish, either overall or in certain areas.
- UV – can be put down on a litho machine fitted with a UV drier and can either varnish overall or in defined areas.
- Roller Coat – an overall process with a UV drier.
- Silk Screen – carried out on a silk screen machine with a UV drier. With this system it is possible to varnish defined areas with a very thick varnish layer. Always use inks which are recommended for varnishing. It is best to try to leave narrow channels free from UV varnish in the areas to be creased.

Waterless Printing

A process on which fountain solution is not necessary. Non-image areas of the printing plate are treated with silicone so that they reject ink.

Watermark

A distinctive design incorporated in paper during manufacture. It is visible when the sheet is held up to the light.

Web Press

A printing press or printer that is fed with a continuous reel of paper.

glossary

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