

## Litho printing

This factsheet is intended to provide basic guidance on litho printing. It is written for general guidance, rather than for seasoned design professionals. If you have any queries at all, you can find our full contact details at the end of the factsheet.

This factsheet by nature contains some technical terms. If you would like to find out more, please see our complementary glossary of print terms, which is available for download from [www.victoirepress.com/factsheets.php](http://www.victoirepress.com/factsheets.php)

### What is litho?

Lithography is the method of printing using plates, and is based on the mutual repulsion of oil and water.

A simplified explanation is:

- (1) oil and water do not mix;
- (2) printing plates have 'image' and 'non-image' areas;
- (3) the non-image areas absorb water, while the image areas absorb ink, and because the ink is greasy the image areas repel the water;
- (4) the plate is rolled against a 'drum' which picks up the ink from the image areas; and finally
- (5), the drum is rolled against paper and the images are printed – hey presto!

If it's making your head hurt trying to work it out, don't worry about it!

For colour printing, four separate plates are used, one for each of the colours cyan, magenta, yellow and black – you will here this referred to as CMYK.

This is known as *offset printing*, because the ink is first transferred to a drum, and then to paper.

### When is litho used?

Litho isn't the only method of print – digital print, for example, is getting more and more popular.

Victoire has the benefit of both digital and litho machines, so we can impartially advise on the best option.

There are certain criteria which we use to decide whether a job is best suited to Litho - a few of these are summarised as follows.

### Laser printing

Business stationery which will later be used in a laser printer (for example, letterhead and invoice templates) will always be litho printed. This is because the toner used in digital print could get distorted by a laser printer.

### Longer print runs

Much of the print cost of a litho job is in the initial setup of the plates and the machine. After that, the actual printing is very cheap. This means that litho printing is much more economical for longer runs.

We will always advise you on this, but – as a general rule of thumb- – it becomes more cost-effective to litho print (as opposed to digitally print) a four-colour print job when the quantity is more than 1,000, and a single-colour job when the quantity is more than 1,500.

### Quality

Digital print quality is excellent, but if print quality is absolutely critical – such as for fine art – then litho printing will achieve a finer print.

### Choice of paper

Litho machines can use a much wider variety of paper stock than digital machines, so litho can be the only option if a certain type of paper is absolutely critical (for example, book covers).

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## Examples

We therefore use litho printing for an extremely wide variety of print jobs. For example:

- Business stationery
- Receipt books
- Journals and magazines
- Books
- NCR forms
- Invitations
- Greeting cards

## Let us help you

If you are at all unsure about any aspect of litho printing or how it affects your print needs, please don't hesitate to get in touch. Victoire has vast experience in all areas of print, design and publishing, so the earlier you can get us involved in print process (e.g. advising on materials, pacesetting, and so on), the more we can help you.

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