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Fabrics and Promotional Products

The title Fabrics and Promotional Products covers virtually every printing application and substrate from textiles to titanium. Those of us closely involved in the market recognise how huge it is but to outsiders it is almost invisible.

Printing promotional products can be a real pain in the gluteus maximus. That is why you have to be highly competent to do it well. Funnily enough I had an individual ring me recently asking for training in printing onto spectacle frames. They had just bought a pad printing machine "from China" and they wanted me to travel to London that day and show them how to print with this four colour equipment. They had no spectacle frames, no ink, no pads, no jigs, no dryer, no plates, no experience but they did have a friend who knew about lithographic printing and when I told them they would need to pay for my services they felt their friend would be cheaper. They have no chance. It will take hundreds of hours to learn and they will wreck countless numbers of spectacle frames in the process.

What is really stupid was that they did not want to listen about technical publications that would help or the grant aid that can be obtained for training through various Government Schemes. If you read the PRISM column this month you will learn more about what is available. The spectacle frame company, in their ignorance, thought that any printing was just printing. After all they put a piece of paper in an office printer and it comes out with a full colour image. This attitude is a double edged sword the ignorant think it is easy and fail and the experts pick up the pieces and make money.

Sadly most promotional products are sourced in the Far East and are printed there, if the quantities are large enough and the lead times acceptable. To a purchaser of promotional items two of, if not the, key elements of the product is the message and their logo. Get the logo wrong and you have a very unhappy customer. Having shipped goods across the world to then discover the print is faulty is an expensive error. Because of this more companies are sourcing the product overseas and having the printing done in the UK.

An additional problem, it is a considerable one, is knowing what material is the substrate made from. A typical example of this situation was relayed to me by John Pettet Proprietor of the long establish sub-contract printing facility, Component Print Services in Croydon. John was asked to print on an assembly produced in China. The information provided by his customer was "it is a form of modified ABS, I need a two colour logo on the surface." Print trials had to be carried out to establish its printability. No matter what ink solvent combination or pre-treatment method John's team tried nothing gave suitable adhesion. In the end it was obvious that the task was impossible because the surface of the material started to break up with a light scratching. The material had not polymerised and was impossible to print. This is an extreme case but at least it was seen before it was put through the printing process.

When printing a batch of components it is necessary to check adhesion as the run progresses as the condition of the substrate can change due to contamination. This particularly the case if mould release is sporadically used when moulding conditions are



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not ideal. If you don't spot this due to deterioration of the print you will soon have a box of rejects.

Whenever an object has to be printed cleanliness and consistency in production of the original object is essential. With plastic mouldings variations in the moulding conditions will show up in changes in the surface that in turn effect print adhesion. Care should also be taken to allow the objects being printed to reach print room temperature before they are printed. If they are cold relative to the air temperature in the print room there is a likely hood that invisible condensation will collect on the surface and compromise adhesion of the ink to the substrate.

Another issue that is often overlooked by clients who want products printed is the packing and unpacking time. This can turn a print production rate from what should be 300 per hour to less than 60 per hour. This applies also to additional cleaning operations due to dust or oil contamination. In this specialist field there are a whole range of issues to take into account it is not just a print as the spectacle frame printer will discover with spectacular levels of rejects.

The processes most commonly used in printing promotional products are screen printing, pad printing, hot foil printing and digital printing using sublimation techniques. Direct digital printing onto objects is limited due to the uneven shapes and the requirement for really good adhesion. I am sure it will improve but to set up a business using exclusively digital techniques when printing on promotional products is very limiting.

In the area of direct printing on to large volumes of textiles screen printing is still the most suitable process. Digital is fine for some proofing, very short runs or display function but for the thousands of metres that are printed for fashion and domestic applications screen printing is pre-eminent. Screen printing in this application can take the form of flat bed or rotary.

It is rotary printing that is the most impressive. Printing a web of material up to three metres wide the machine consists of a series of printing heads, ten or more are not uncommon.

Standfast Barracks in Lancaster are one of the few remaining companies in the UK using rotary screen printing on a wide range of fabrics for the home, apparel and industrial applications. It is highly successful because it serves specialist markets for relatively short runs of high quality printed fabrics. The rotary printers have repeat lengths of 53.7cm, 64.1cm, 68.8cm, and 91.4cm. Their latest acquisition being the MHM FP²S rotary screen printing machine this 20 colour system upgrades their existing capacity with this advanced printing system.





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Standfast also uses flat bed screen printers when the repeat length of the design is too great for rotary printing or the image is more suited to flat bed. Both printing systems operate on webs of material up to 180cm for rotary printing and 152 cm for flatbed. As well as the printing processes the company has the complete range of pre and post treatment processes enabling the use of Vat dyeing, Acid, Reactive, Disperse, Pigments and Discharge inks. Finishing techniques include, crease resist, flame retardant, soil resist, water repellent, chintz and lots more. One of the most attractive fabric treatment techniques is Burnout where Devore prints are printed onto cotton/polyester fabrics. The burnout paste, which is printed onto the cloth, when heated turns into acid which burns off the cotton leaving the polyester. The final effect is to have beautifully printed designs suspended in a fine translucent material.

MHM Printing



Recently the company has brought in a digital printing machine for textiles from Stork. It is a perfect synergy when printing short runs with the much faster screen printing. In spite of a difficult climate Standfast-Barracks are finding plenty of opportunities to do business in the UK, being able to react quickly with a quality of printing and fabric processing that is at the peak of technological development.

Luxury Fabrics



We are always talking about finding a niche and being different from your competitors the levels of expertise required in printing promotional products and fabrics is a perfect example of specialisation. In November of last year I wrote about the opportunities in the garment printing market and how innovative textile printers were carving a new niche. In a world where so much is uncertain establishing the customer's needs and satisfying them with the skills inherent in screen printing and associated techniques has to be a way of bringing stability. Most companies who screen print have less than 20 staff. So the overall economy may be ailing but the fleet of foot printer can always find a way to keep his presses running profitably.