



**2008
September**

**You CAN win with Screen in
Point of Sale**

If you listened to the profits of doom you would believe that screen printing is finished in POS printing. How wrong you would be. This is not rhetoric this is based on facts and real practical experience.

If I just replay the words used by an esteemed digital printing guru. "Screen printing is finished! Digital printing will destroy it!"

If you had been with me for the last two days you would have heard a completely different story and seen for your own eyes that the destruction theory is rubbish. Screen printing in POS is buoyant effective and profitable. Has this old man finally lost his marbles you may say? Has the Austrian beer addled his brain? Austria, what has Austria got to do with this? St Viet in Austria is where Signum Siebdruck has its headquarters. Dieter Jernej is the Geschaftsfurung (Managing Director). Dieter is in his late thirties and has been working in the company since he was eight, not child labour, but it is a family business. In the evenings and weekends he would be in helping with stencil making. When he left school Dieter worked his way through all the departments and learnt his business skills from his father. The company turns over €14.5 Million, employs 70 people and creates a profit after tax almost double figures. When you consider the figure in the UK is nearer 3% this indicates success.

So how is Dieter so successful? First he a good businessman, second he is fully involved in the day to day running of his business, third he has a highly skilled loyal workforce and forth he buys what his thorough research tells him is the best equipment and upgrades at least every five years sometimes bi-annually.

His latest acquisition is a 5 colour SIAS Multiformula 1.6 metre x 2.65 metre screen printing machine. This sits alongside a four colour SIAS Multiformula 1.6 metre x 2.15 metres and a further four colour 1.8 metre x 3.3 metre SIAS. This is a very impressive array. The latest 1.6 x 2.65 is only 6 months old and it demonstrates state of the art screen printing technology.

SIAS MACHINES SIGNUM



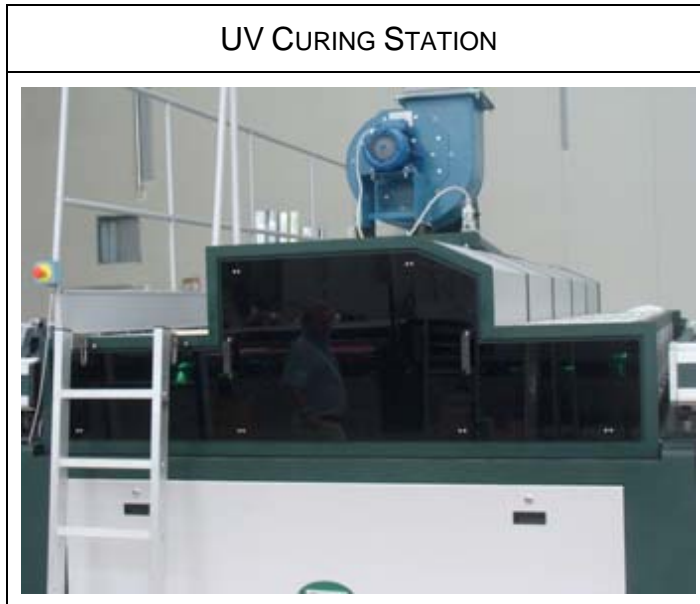


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The reformed SIAS Company are in the process of moving to new premises outside Milan have come up with a cracker of a machine. It answers so many of the questions posed by these printing leviathans in the past. Starting with a unique scanning UV curing system that can be programmed to scan just the image area printed at each station. It has 16 different power settings that can now be upgraded to an electronically controlled step less output. This removes the need for large transformers and reduces the electrical spikes experienced by other systems. When not actually curing during a scan the lamps wait at 10% of full power with the reflectors moving in front of the emitter to act as shutters, fans also slow down. The results are dramatic energy savings and considerably reduced heat build up. Remarkably the actual lamp housing is only warm to the touch. This must one of the most efficient UV curing systems available. Dieter is delighted with its performance.

UV CURING STATION



The developments do not stop at the curing technique. The gripper and registration system is unique. No longer are there the gripper fingers that destroyed squeegees. The substrate is pushed up to a stop that then positions the sheet automatically against a side lay. Fibre optic sensors detect the position and then the solid gripper plate takes the sheet that can range from 120gsm to 10 mm thick onto the vacuum table that can be sectioned off to suit the sheet size. The gripper plate is moved on a servo driven toothed belt until it is firmly locked into position for the print sequence. There is no need for heavy chains running along the length of the machine.

There is also a blow back function that reverses the vacuum and provides an aircushion for the substrate to leave the print station. This particularly useful for difficult to handle substrates.

Peel off is motorized with the rate of peel and start point fully adjustable.



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Then we come onto the squeegee and flood coater assembly this is massively constructed but gives very precise control of all the squeegee and flood coater parameters, pressure, angle speed are all servo driven with additional pneumatic actuation along the squeegee's considerable length to ensure pressure is balanced at all points. Insertion and removal of the squeegee and flood coater can be carried out single handed. Once pushed into position one button on the control panel locks the assembly and all the necessary parameters are set either using a previous setting program or fine adjustment from the control panel.

SQUEEGEE AND FLOOD COATER ASSEMBLY



Loading the screen is equally straightforward with a program sequence that causes the print head to raise slightly and set the squeegee and flood coater to a park position enabling the screen to be quickly removed and replaced without the need to have a second operator on the other side of the machine.

When a job is finished and the next job has to be loaded there is a "Tear Down" button that resets all operations to zero and removes the possibility of compromising settings on a machine. All best set up procedures should start from zero even if you didn't have the sophistication of the SIAS machine.

With a five colour line ease of obtaining accurate registration is essential and this is certainly the case when the first sheet is run through the machine the printer can view it at each print head or the end of the machine and make any minute adjustments necessary by operating stepper motors on the X, Y and Z (skew) axes.

Dieter reckons that a complete 5 colour changeover of substrate and image will take no more than 30 minutes. Simple changeover of one print station 5 minutes.



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If you take a look inside the panels of the Multiformula machine you will each drying station and print station are discrete units so these are building blocks of a print system that can create a line with as many stations as you wish. The structure of the individual units is a fully welded construction and they can link up with umbilical connections giving tremendous flexibility.

High productivity machines such as the SIAS Multiformula require very efficient pre-press capabilities to keep them fed with the right quality stencils. At SIGNUM they have two Signtronic Computer to Screen Systems along with fully automatic screen development and reclamation. They also stretch their own screens. Dieter recognises that the stencil is the foundation of the process and he aims to provide the optimum stencil every time and from what I could see he succeeds. Remember he has been making stencils since he was 8 years old.

SHEETING MACHINE



Another interesting feature in the armoury of SIGNUM Siebdruck is that Dieter buys his substrate on the roll direct from the mills and converts it into sheets on the premises. Some may say the investment in equipment is profligate but the material cost savings more than pay for the equipment. He also has much greater control on the quality of pre-treatment of polypropylene and polyethylene.

In every area of his business Dieter believes in Test, test and test again before adopting new technologies or materials. The aim is to reduce the variables to an absolute minimum and ensure that there is very little variation over time.

So why is Dieter so successful in the POS market? He decided to go for a niche. He knows all about digital printing, as in a separate department he has several wide format machines and he understands the size limitations of wide format lithographic.



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Dieter is going for the market that requires bigger volumes than digital can economically produce and larger sizes than wide format litho can print. By using the most up to date equipment and maintaining precise process control SIGNUM can compete on quality, delivery and price and still make a profit that allows continuous reinvestment in state of the art equipment.

One thing not mentioned previously is the fact that the heating system for the plant uses wood pellets from the local timber industry waste. Not only is this company technically ahead of the field, profitable but it is also uses a renewable energy source. The real key to success is that SIGNUM is a family business that employs family members and has a totally committed team who knows that the boss can do any job in the building and when necessary will do so.