

Simplifying screen printing on glass surfaces

The quality of a screen-printed glass product will only be as good as the previous process, i.e. the screen making procedure, explains Sandra Woerle from SignTronic/Grünig-Interscreen.

The demand for glass screen printing technology is rapidly growing, whether we are talking about disposable or reusable products, solar panel plants covering the electric requirements of entire cities, decorative glass elements, or interior applications as well as generally in the automotive sector. In particular, the high-quality decoration and functional printing sectors are particularly versatile and interesting, and these are exactly the ones that require top quality and standardised procedures.

Screen printing on glass is one of the most frequently used finishing methods in the glass industry. A large number of glass manufacturers have been staking their bets on this printing procedure for many years. However, many have encountered limits in their applications for this method, since the traditional screen-printing procedure involves steps such as conventional film exposure, manual screen coating and development of the screens, which are extremely time-consuming and therefore cost-intensive processes. In addition, many of today's print companies are experiencing a considerable lack of personnel – another major factor in the decision-making process.

Efficiency without compromise

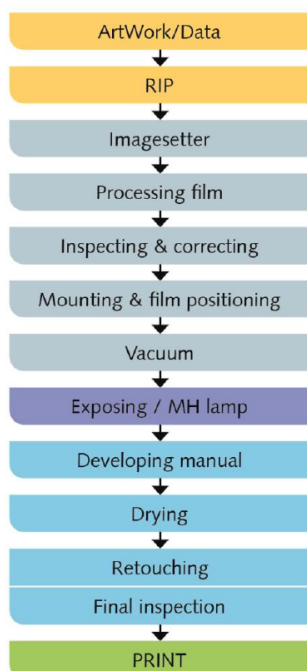
So what can printing companies do in order to stabilise their processes, improve quality and to achieve reproducible results with maximum cost-efficiency and minimum time expenditure, and with as little staff intervention as possible?

Two Swiss companies – SignTronic AG, based at Rütli in Eastern Switzerland, as well as Grünig-Interscreen AG with headquarters at Schwarzenburg near Bern – have been dedicated to these values, i.e. to standardise and automate in order to simplify screen printing, making it their objective to keep the screen making process less personnel-intensive and as economically efficient as possible, without compromising on the quality of the screens.

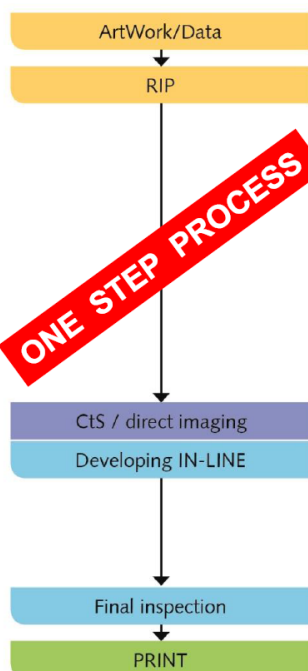


G-COAT415 automatic coating machine for multiple screens.

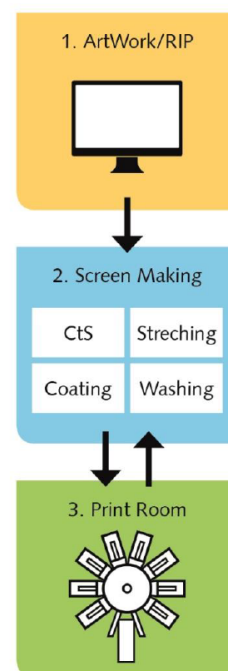
CONVENTIONAL PROCESS



CtS DIGITAL SCREEN MAKING



THE PERFECT WORKFLOW



CtS technology workflow – a one-stop process.



SignTronic's STM-MICRO standalone unit for direct exposure.

'Two companies – one vision' is one of the main mottos of both companies. Having co-operated in the implementation of countless new installations all over the world, their pairing offers the perfect partner in the field of screen printing technology.

Over many years, these two companies have been able to gain experience through a wide range of installations for the glass industry. As a consequence, they know that when it comes to printing glass products or quite generally for any other screen

printing job, the quality of a product will only be as good as the previous process, i.e. the screen making procedure.

Screen specialists

Grünig-Interscreen has staked its position on automation and is in a position to supply an entire range of equipment, from coating systems to stretching devices, developing machines up to fully automated inline systems. The company offers all necessary support and assistance to simplify, standardise and improve the quality of screen making. Grünig can even provide quality improvement solutions for small-size screens.

SignTronic has been synonymous with computer-to-screen (CTS) technology for 20 years, supplying high-quality CTS and complete direct exposure systems – all the result of in-house design and construction, in traditional, unbeatable Swiss quality. Thanks to the modular construction method, the StencilMaster systems can be operated not only as stand-alone equipment but also be integrated into a complete inline development chain. In addition, they can be connected to already existing plants.

Must-have masterframe

Manufacturers handling large-size screens are usually familiar with CTS and automated screen making, however there are specialists in this sector who [seem to] ignore the fact that the screen-making process can also be automated and standardised for very small screens, so that even smaller producers can benefit from this technology by simplifying their manufacturing processes.

SignTronic and Grünig have proven that virtually all manufacturers in the glass industry can take advantage of this technology. The key is the masterframe, which both companies offer as an optional equipment for a wide range of applications and screen sizes.

The masterframe is a fixed reception unit for a determined number of screens. The main advantage of the masterframe lies in the fact that several small screens can be treated without needing to have identical dimensions. The number and size of the screens are defined in advance. Simultaneous treatment of several small-size screens in the inline development system not only saves time but also money.

The variable exposure of the screens via CTS technology supplied by SignTronic is no problem either. In this case, the printing motive is positioned via PC on the particular screen, upon which the StencilMaster exposes one screen after another with the various printing motives.

Using this method, Grünig-Interscreen AG and SignTronic AG can guarantee a fully automated, standardised screen production in optimal reproducible quality. ●



Several small frames can be edited in one step using the masterframe option from SignTronic and Grünig.

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