

WE ARE SCREEN PRINTING

ESTAMPARIA MEIRELES – Screen Printing stands out!

CTS TECHNOLOGY: SHAPING MARKET FUTURE?

Who would have thought, years ago, that Screen Printing would evolve to a change so significant, to the point of even being able to achieve a competitive advantage? World experts seem to have taken their decisions: Digital Printing clearly takes precedence and will override the most other printing processes, or at least bring them considerable difficulties. It quickly became evident that Digital Printing also has its limitations, either in quality or costs, who claims is Andreas Ferndrigger, CEO of SignTronic AG.

SHAPING MARKET FUTURE?

The "digitalization" is taken for granted in transversal terms as are the "new demands" by the markets, leading "printing industry" to reflect on its near future like the answer will have to be given in satisfaction of these "new demands" by the customers. From Textile segment, Graphic, Industrial or Functional with productions of small, medium or large size, everything is focused on huge base and new requirements to the level of a continuous "Immediate process"!

Textile-Fashion (T-Shirt)-the opportunities have increased by the requirements of "new ideas", "new designs", "new functionalities" side by side with a renewed and growing movement called "Reshoring" (new return practice of manufacturing and services relocated abroad back to Europe or to United States), for various reasons, by geopolitical problems but also by the "need" of the pyramid of the European market being under changes, favoring the higher added value segments and luxury against the traditional segment of the so-called low cost volume! Innovative Differentiation and Diversification are the objective?

For **Estamparia Meireles** the need to "digitalize" their Screen Printing Pre-press, printing technology company base in growing, has become a necessity exactly because the traditional analog system with image processing with photolithographic films be proven to be a blocking factor to the need for "immediate" responses, for sampling or in presence of productions at any level as well as the need for innovative responses at level of the printed image (with photo-realism, halftone, four-color process, thick or 3D, flocked, adhesives, etc.), improving the productivity of its printing department through faster set up times and by the normalization process on screen making! Of course the steps of adaptation to given investment have its route, by continuous training, reorganization within the concept of stencils in stock for a concept of screen preparation directly to production, given the responsiveness of the system and ensuring repeatability, by using a reduced number of aluminium frames and consequent drastic reduction in the number of screens in storage. A bet on automation and reduction of process steps! The Imaging CTS digital unit, model STM-TEX, works in automation since stencils feeding, exposing with UV CPL light unit and optical system by Zeiss, developing online and unload in full automatism, using a higher 1270x1270 dpi real resolution on screen and including the ColorGATE RIP software system dedicated to CTS Screen Printing Technology!



TEXTILE-FASHION (T-SHIRT)

OPPORTUNITIES HAVE INCREASED BY THE REQUIREMENT OF "NEW IDEAS" - "NEW DESIGNS" - "NEW FUNCTIONALITIES"

Digital Technological Revolution that went through Total Elimination of "Photolithographic Films", these largely responsible for blocking the qualitative evolution, the imperious need of "just-in-time" answers and the standardization of industrial process steps. Today thanks to the innovative technology of **SignTronic STM-TEX** the bottleneck caused by Photolithographic films, by lack of productivity or the impossibility to normalize and repeat, STM-TEX system (CTS) brought the full normalization of all process and enable easily and predictable a better print quality, increasing

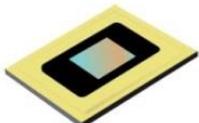
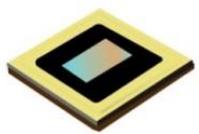
productivity, with an enormous flexibility and low costs per screen, guaranteed by the choice of **Estamparia Meireles** for the digitalization of their Screen Printing Prepress!

MODULAR CTS CONCEPT

The **Vision** of Swiss companies **Grünig-Interscreen AG** and **SignTronic AG** world leaders in equipment dedicated to Screen Printing Technology by sharing technologies and coming up with new and innovative solutions to the level of a new concept for Screen Printing Prepress using the most modern solutions CTS (Computer-To-Screen / Digital Direct Imaging with UV light) on a logic of automation, bridging the Third Industrial Revolution into the Digital Era (**Industry 4.0**) with the clear benefits that are recognized by a lot of Portuguese Industrial Textile-Fashion Printers that bet on this technology through the **STM-TEX** systems!

In technological terms and relative to light imaging process SignTronic AG presents the **Modular CTS Concept**, as per photo, advising as more versatile imaging / exposing using UV light unit (CPL 330W) standard, DMD XGA4100 standard and optical 1270 dpi's or 2400 dpi's standard, proving in practice a correct emulsion hardening in conventional work situations either on type of mesh or emulsions in use. Also all STM systems from SignTronic are prepared for the use of imaging with LED systems, UNO and DUO, (being important the combination with a high optical quality, on STM with Zeiss), but with limitations in terms of wavelength, 385 nm and 405 nm, resulting in lower light power on the emulsified screen / lower exposure speed or at the level of the emulsion types and the use of courser or stainless meshes!

Taking into account the variety of CTS systems on the market, ink-jet, wax-jet, LED light or UV light basis, our first recommendation goes to make industrial assessment tests. For SignTronic is indifferent, because STM systems are prepared to receive, now or in future update, UV and LED systems. Important is to take into account the actual real requests, by screens variety, fine mesh, course mesh, polyester or stainless steel, various combinations of emulsion thicknesses (four-color process, halftone jobs, lines, thick or 3D, adhesives or flocking), numbers of screens to be produced per day and its varied formats, real hardening of the emulsions / resistance in printing, real capacity of repeatability of systems in analysis as well as the possibility of updating and future systems automation! To finally be able to make a proper cost-benefit analysis and return on investment!

MODULAR Cts Concept		
UV light source	DMD	Optics / resolution
UV-Lamp CPL  UHP 	XGA DISCOVERY 4100 0.7" 	1270dpi  2400dpi
UV-LED UNO 405nm  DUO 385nm / 405nm 	1080p DISCOVERY 4100 0.95" 	1609dpi  3040dpi

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