

StencilMaster®

STM-MICRO

Grünig
SignTronic

A perfect screen at lightning speed!

This is the goal that motivates us to develop and manufacture in Switzerland a wide range of **Computer-to-Screen (CtS) equipment** under the designation **SWISS CtS TECHNOLOGY**. The STM-MICRO is a product already based on the **fourth generation** of StencilMaster direct exposure systems.

The compact front-loading model is available in two different sizes and will fit all your needs:

STM-MICRO_S with a max. screen size up to 900 x 900 mm (35" x 35")

STM-MICRO_L with a max. screen size up to 900 x 1200 mm (35" x 47")

Due to the large number of involved process steps, the conventional screen exposure is very complex, expensive and error-prone. The CtS equipment sets new standards in this field and distinguishes itself by the following advantages: highest possible reproducibility thanks to **DIGITAL SCREEN MAKING**, absence of film and all the associated handling costs, improved printing quality, higher productivity rate, increased flexibility and lower screen costs.

UV light source: Powerful **LED_Q4 (Gen6)** or **330W CPL UV lamp** for an optimal exposure and full curing of virtually all the direct emulsions on all the mesh types. As a variant, a **UV-LED DUO light source** can also be offered.

Optics from ZEISS: high light transmission, torsion-free, stable and high-precision.

Available resolution: 1270 dpi, 1609 dpi (HR1), 2400 dpi (HR2), 3040 dpi (HR3).

OECU (Optical Engine Control Unit): The core of the new generation. This control unit, which has been developed by our own engineers, manages all the processes related to the exposure head. **DMD's (Digital Micro-mirror Device)** of the latest generation are controlled as efficiently as the high-precision horizontal and focusing axes.

STPrint V.4: The in-house conceived user software allows a centralized operation and control of the STM equipments.

Basic construction: This construction method based on premium massive steel is indispensable to achieve a first-class and high-precision direct exposure. A multiple axes system is configured on the basic construction. An exposure unit with air suspension guarantees vibration-free movements. The unique drive system functions in horizontal direction.

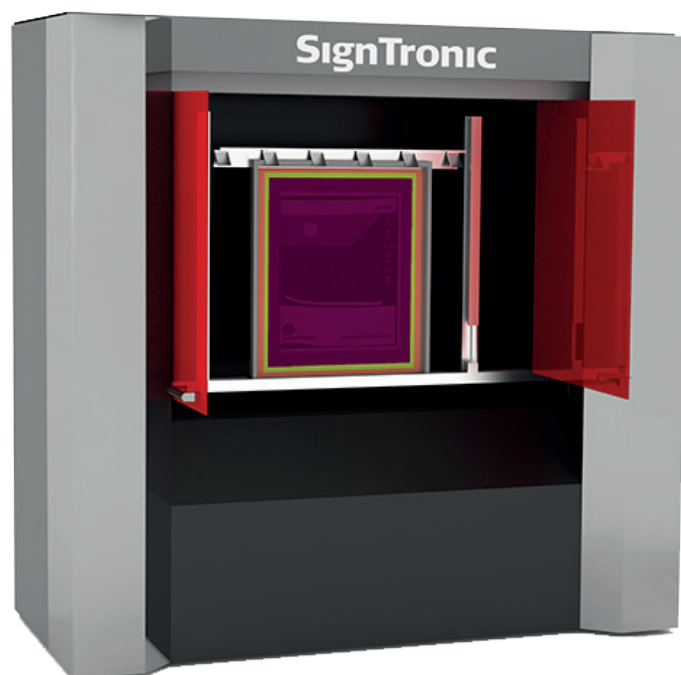
Bidirectional exposure: Thanks to the to-and-fro movement, this standard working method is extremely precise and fast.

Front loading of the screens: The STM-MICRO can be conveniently and quickly loaded from the front. This means: unobstructed access for the operator and reduced space requirement for the installation.

Option RICB (Remote Image Control Board):

This equipment provides a simple and efficient means of monitoring and maintaining the exposure quality.

Among others, the following checking and measuring activities are possible: mechanical basic setting including focus measurement, incident light metering of the entire DMD with automatic mask preparation and readjustment of the light output.



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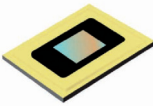
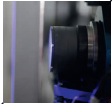
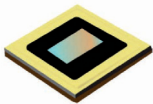
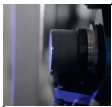
StencilMaster[®]

Technical Specifications

Technical data	STM-MICRO_S	STM-MICRO_L
Height	1830 mm (72")	2130 mm (84")
Width	1865 mm (73")	1865 mm (73")
Depth	920 mm (36")	920 mm (36")
Net weight	ca. 920 kg (2028 lbs)	ca. 950 kg (2095 lbs)
Max. screen format (H x W)	900 x 900 mm (35" x 35")	1200 x 900 mm (47" x 35")
Max. exposure format (H x W)	800 x 740 mm (31" x 29")	1100 x 740 mm (43" x 29")
Screen positioning	according to customer's specifications	
Available resolution	1270 dpi, 1609 dpi (HR1), 2400 dpi (HR2), 3040 dpi (HR3)	
UV light source	LED_Q4 (Gen6), High power CPL 330 W or UV-LED DUO (385 nm / 405 nm)	
Power consumption	~1100 W	
Data interface	Ethernet 1-Gbit	
Remote maintenance	Integrated in data interface (an internet connection is required)	
Operating System	Windows 11	
Technical requirements		
Power supply	208-240 VAC / 50 - 60 Hz / 16A	
Compressed air supply	6 bar (87 psi)	
Compressed air consumption	max. 50 l/min (50 ft3/h)	
Compressed air quality	ISO 8573-1 4.4.4	
Room conditions	Yellow light, dust free, vibration-free floor	
Floor load	500 kg/m2 (103 lbs/ft2)	
Ambient temperature	18 - 24° C (65 - 75° F)	
Air humidity	25 - 75 % (rF)	
Required data format	1-bit TIFF	
Process control	RICB (Remote Image Control Board)	
Masterframe M	Customized reception unit for various smaller screens	
Option Z	Additional frame fixation for small screens	
Resolution	1609 dpi (HR1), 2400 dpi (HR2), 3040 dpi (HR3)	
RIP software	SignTronic ST.Rip	

Technical data are subject to alterations. Only terms and conditions of Grunig-SignTronic AG are valid

MODULAR CTS CONCEPT

	UV light source	Technology DMD	Zeiss Optics / Resolution
UV-LED	Q4 365 / 385 / 395 / 405 nm 	XGA 0.7" - Discovery 4100 	1270 dpi 
	DUO 385 nm / 405 nm 		2400 dpi 
lamp UV	CPL 350 - 450 nm 	1080p 0.95" - Discovery 4100 	1609 dpi 
	UHP 350 - 450 nm 		3040 dpi 