StencilMaster® STM-ONE

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-ONE is a product already based on the **fourth generation** of StencilMaster direct exposure systems.

The current model **STM-ONE** is available in two different sizes:
ONE_S with a max. screen size up to 1200 x 1200 mm (47.2" x 47.2")
ONE_L with a max. screen size up to 1200 x 1600 mm (47.2" x 63")

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 **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
1270 dpi resolution – standard resolution

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-ONE 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.
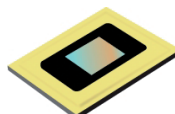
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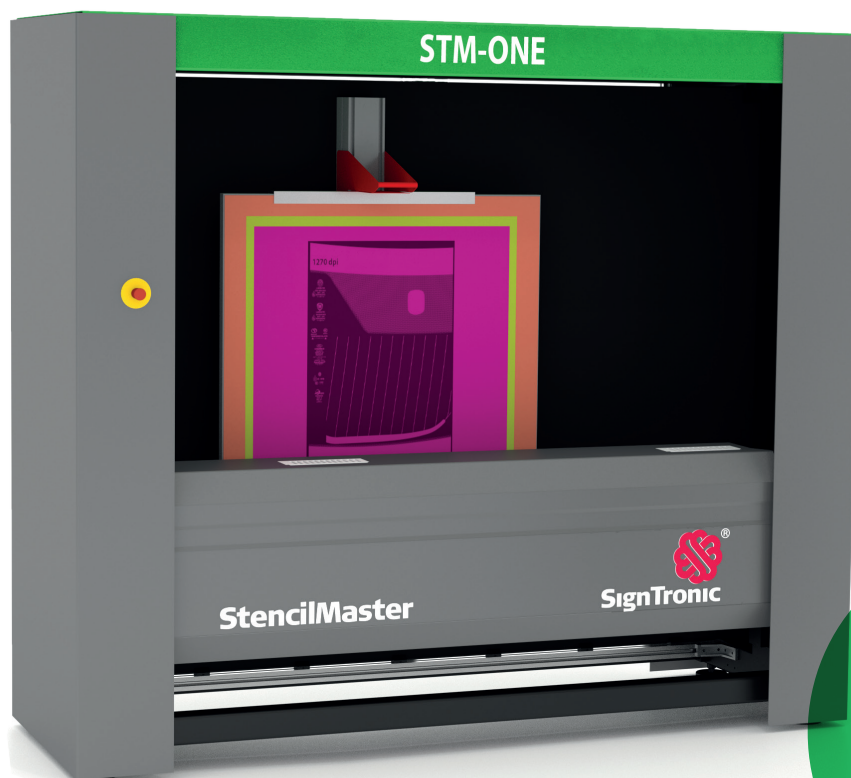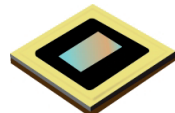
STM ONE

Technical Specifications

Technical data	STM-ONE_S	STM-ONE_L
Height	2000 mm (78.8")	2000 mm (78.8")
Width	2290 mm (90.2")	2890 mm (114")
Depth	870 mm (34.3")	870 mm (34.3")
Net weight	ca. 1100 kg (2425 lbs)	ca. 1400 kg (3086 lbs)
Max. screen format (H x W)	1200 x 1200 mm (47.2" x 47.2")	1200 x 1600 mm (47.2" x 63")
Max. exposure format(H x W)	1000 x 1000 mm (39.3" x 39.3")	1000 x 1400 mm (39.3" x 55,1")
Screen positioning	according to customer's specifications	
Available resolution	1270 dpi	
UV light source	CPL 330 W or UV-LED DUO (385 nm / 405 nm)	
Power consumption	~1100 W	
Data interface	Ethernet 1-Gbit	
Remote maintenance	Intergated in data interface (an internet connection is required)	
Operating System	Windows 10	

Technical requirements	
Power supply	208-240 VAC / 50 - 60 Hz / 16A
Compressed air supply	6 bar (87 psi)
Compressed air consumption	max. 20 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	600 - 1000 kg/m2 (110 - 180 lbs/ft2)
Ambient temperature	18 - 24° C (65 - 75° F)
Air humidity	25 - 75 % (rF)
Required data format	1-bit TIFF

Options	
Process control	RICB (Remote Image Control Board)
RIP software	Colorgate Productionserver PS (SignTronic Edition)
Proofing software	FirstPROOF PRO
Service contract	Customized service contracts are available on a optional basis

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

MODULAR CtS CONCEPT		
UV light source	**DMD**	**Optics / resolution**
UV-Lamp — CPL 350 - 450nm / UHP 350 - 450nm	XGA DISCOVERY 4100 0.7"	1270dpi / 2400dpi
UV-LED — UNO 405nm / DUO 385nm / 405nm	1080p DISCOVERY 4100 0.95"	1609dpi / 3040dpi