StencilMaster® STM-ONE / STM-XS

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

These two models in the STM series combine easy use with maximum **flexibility** and **quality**.
The **STM-ONE** and the **STM-XS** are two **front-loading systems** and are ideal for small screen printing stencils to be processed in single, double or multiple-up mode.
With special adapter frames, so called "master frames", several small frames can be inserted and automatically exposed one after the other

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).

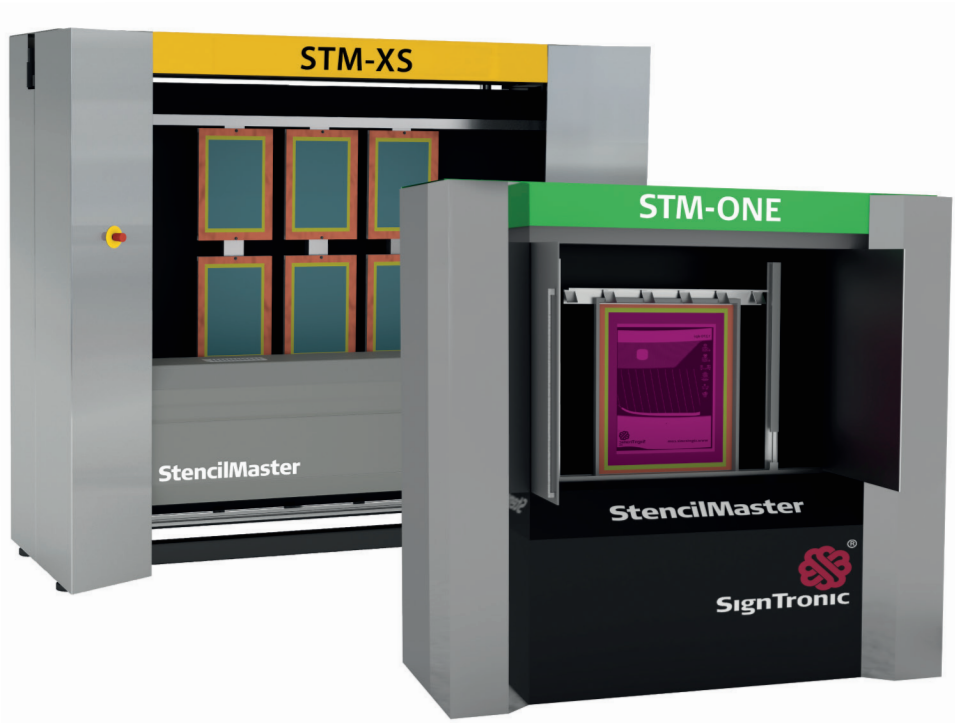
OECU (Optical Engine Control Unit): The core of the new generation. This control unit, which has been developed by our own engineers, manages all the processes related to the exposure head. **DMD's (Digital Micro-mirror Device)** of the latest generation are controlled as efficiently as the high-precision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

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.



STM XS

STM ONE

SignTronic® AG

Technical Specifications

Technical data	STM-ONE_S	STM-ONE_M	STM-XS_S	STM-XS_M
Height	2000 mm (78“)	2280 mm (89“)	2035 mm (80“)	2280 mm (89“)
Width	2290 mm (90“)	2465 mm (97“)	2290mm (90“)	2465 mm (97“)
Depth	870 mm (34“)	920 mm (36“)	985 mm (39“)	985 mm (39“)
Net weight kg/lbs	ca. 1100 (2200)	ca. 1200 (2600)	ca. 1100 (2200)	ca. 1200 (2600)
Max. screen format (H x W) mm/inch	1200 x 1200 (47 x 47)	1250 x 1500 (49 x 59)	1200 x 1200 (47 x 47)	1250 x 1500 (49 x 59)
Max. exposure format (H x W) mm/inch	1000 x 1040 (39 x 41)	1150 x 1340 (41 x 53)	1000 x 1040 (39 x 41)	1150 x 1340 (41 x 53)
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	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. 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	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)
Masterframe M	Customized reception unit for various smaller screens
Resolution	1609 dpi (HR1), 2400 dpi (HR2), 3040 dpi (HR3)
RIP software	SignTronic ST.Rip or Colorgate Productionserver PS (SignTronic Edition)

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

MODULAR CtS CONCEPT