SignTronic® AG

StencilMaster® D-Series

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 present D-Series is already the **fourth generation** of StencilMaster direct exposure systems.

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, impressive 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 maximum precision
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 Devices)** 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 – including complete IN-LINE installations supplied by Grünig.

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 air suspension exposure unit 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.

Automatic positioning of the screens: All the StencilMasters of the D series can be loaded and unloaded from both sides. The automatic insertion feature ensures an uncomplicated handling, a fast and precise positioning as well as an optimal fastening within the installation.

Possibility of modular extension: Installation concept with the possibility to integrate all the Grünig IN-LINE equipments (loading and unloading magazines, developing, coating, air blower and drying modules).

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 D

Technical Specifications

StencilMaster type	Maximum frame format / exposure format (W x H)	Resolutions
STM-1010	1400 x 1200 mm (55" x 47") / 1000 x 1000 mm (39" x 39")	1270 dpi, HR1, HR2, HR3
STM-1612	2100 x 1400 mm (83" x 55") / 1600 x 1200 mm (63" x 47")	1270 dpi, HR1, HR2, HR3
STM-1616	2100 x 1800 mm (83" x 71") / 1600 x 1600 mm (63" x 63")	1270 dpi, HR1, HR2, HR3
STM-2310	2800 x 1200 mm (110" x 47") / 2300 x 1000 mm (91" x 39")	1270 dpi, HR1, HR2, HR3
STM-2316	2800 x 1800 mm (110" x 71") / 2300 x 1600 mm (91" x 63")	1270 dpi, HR1, HR2, HR3
STM-2320	2800 x 2200 mm (110" x 87") / 2300 x 2000 mm (91" x 79")	1270 dpi, HR1
STM-2720	3200 x 2200 mm (126" x 87") / 2700 x 2000 mm (106" x 79")	1270 dpi, HR1
STM-3124	3600 x 2600 mm (142" x 102") / 3100 x 2400 mm (122" x 94")	1270 dpi, HR1
STM-4126	4600 x 2800 mm (181" x 110") / 4100 x 2600 mm (161" x 102")	1270 dpi, HR1
STM-4136	4600 x 3800 mm (181" x 150") / 4100 x 3600 mm (161" x 142")	1270 dpi, HR1

Other StencilMaster sizes on request

StencilMaster type	Machine measurements	Weight
STM-1010	2000 x 2400 x 1340 mm (H x W x D) / 79" x 95" x 53"	1400 kg / 3090 lbs
STM-1612	2160 x 3040 x 1340 mm (H x W x D) / 88" x 120" x 53"	1550 kg / 3420 lbs
STM-1616	2560 x 3040 x 1340 mm (H x W x D) / 101" x 120" x 53"	1600 kg / 3530 lbs
STM-2310	2000 x 3740 x 1340 mm (H x W x D) / 79" x 147" x 53"	1650 kg / 3750 lbs
STM-2316	2560 x 3740 x 1340 mm (H x W x D) / 101" x 147" x 53"	1700 kg / 3750 lbs
STM-2320	2960 x 3740 x 1340 mm (H x W x D) / 117" x 147" x 53"	1750 kg / 3860 lbs
STM-2720	2960 x 4140 x 1340 mm (H x W x D) / 117" x 163" x 53"	2000 kg / 4410 lbs
STM-3124	3360 x 4540 x 1340 mm (H x W x D) / 132" x 179" x 53"	2300 kg / 5070 lbs
STM-4126	3560 x 5540 x 1340 mm (H x W x D) / 140" x 218" x 53"	3200 kg / 7055 lbs
STM-4136	4560 x 5540 x 1340 mm (H x W x D) / 180" x 218" x 53"	3350 kg / 7385 lbs

Room conditions	Yellow light, dust-free, free of condensates, vibration-free floor
Ambient temperature	18 - 24 °C / 65 - 75°F
Rel. humidity	25 - 75 %
Power supply	220 - 240 V / 50 - 60 Hz / 16 A
Compressed air supply	max. 50 l/min (50 ft3/h) at 6 bar (87 psi)
UV Light source	LED_Q4 (Gen6), CPL 330 W or UV-LED DUO (385 nm / 405 nm)
Exposure speed	up to 40 m^2/h / 430 sqf/h
Power consumption	1100 VA
Data format	1 Bit TIFF
IN-LINE capability	All StencilMaster D-Series can be integrated into an IN-LINE system
Options	**RICB** (Remote Image Control Board) **RIP** SignTronic ST.Rip **RIP** Colorgate Production Server (SignTronic Edition)
Operating System	Windows 10
Service contract	Customized service contracts are available on a opional basis

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