MultiMesh!

Digital Screen Making



BASED ON INNOVATION.

lüscher
Technologies

The Technology Behind MultiMesh!

A Revolution in Screen Printing

With MultiMesh!, a new era of screen printing begins. Instead of a traditional mesh, we use an innovative plastic film with exceptional properties – durable, precise, and completely closed. This special film is stretched over a self-tensioning frame, creating a 100% closed and stable base ready for imaging. The core innovation: Unlike conventional UV-based systems, the image is applied using high-precision thermal lasers. The printable image is lasered directly into the surface, creating a mesh-like structure that allows ink to pass through exactly where it's needed – without using any traditional fabric mesh at all.

The Result

A high-resolution, digitally generated print image – stable, repeatable, and reimagined from the ground up. Another major advantage: Since the mesh is created digitally, multiple mesh structures can be used for different elements of the same design – all on a single screen, in a single process.

Innovative Pneumatic Self-Tensioning Frame – Designed for MultiMesh! Technology

Specifically developed for our cutting-edge MultiMesh! technology, this pneumatic self-tensioning frame enables fast and fully automated screen stretching using air pressure. Thanks to this innovation, the layering process is significantly accelerated and simplified.

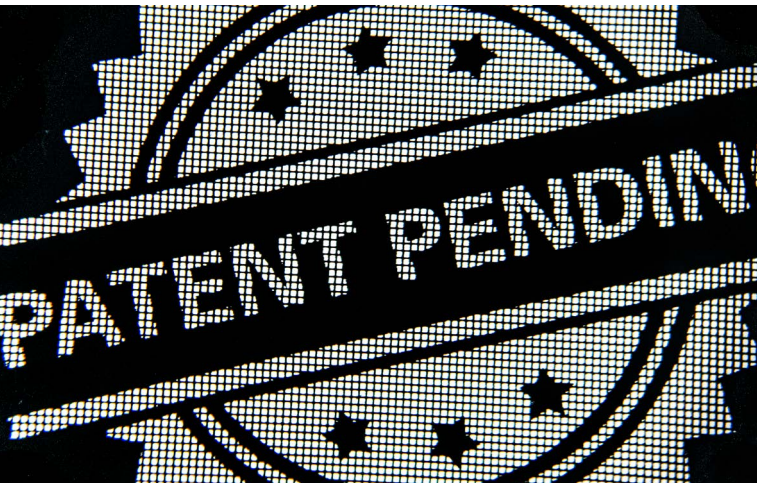
Moreover, since the entire MultiMesh! process requires far fewer intermediate screen changes, only a fraction of the traditional number of tensioning frames is needed – saving both time and resources.

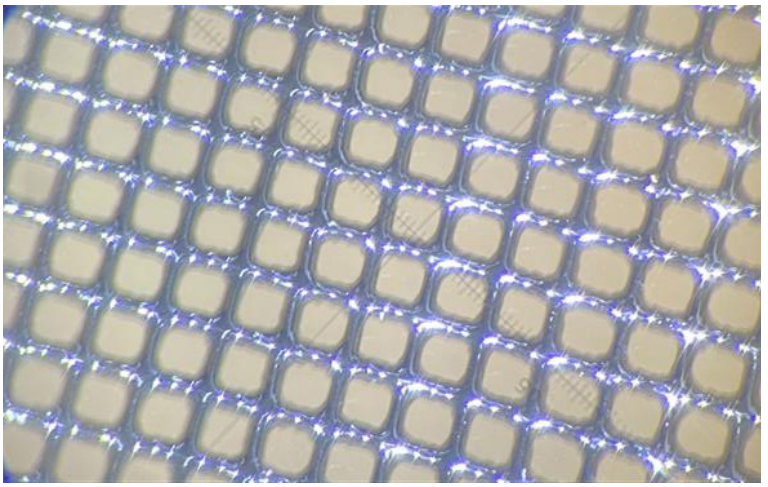
Available Frame Sizes and Corresponding MultiMesh! Tickets (including layers):

We offer the following frame sizes, each matched with the corresponding MultiMesh! ticket – including black MultiMesh! layers – to ensure maximum flexibility and efficiency in your production process.

MultiMesh! Ticket	XS	S	M	L	XL	XXL
Standard Frame Size (L x W)*	500 x 350 mm (19.7 x 13.8 inch)	720 x 540 mm (28.3 x 21.3 inch)	850 x 590 mm (33.5 x 23.2 inch)	920 x 620 mm (36.2 x 24.4 inch)	1'100 x 850 mm (43.3 x 33.5 inch)	1'200 x 950 mm (47.2 x 37.4 inch)

*other frame sizes upon request





MultiMesh! vs. Conventional Screen Printing Process

MultiMesh! Process

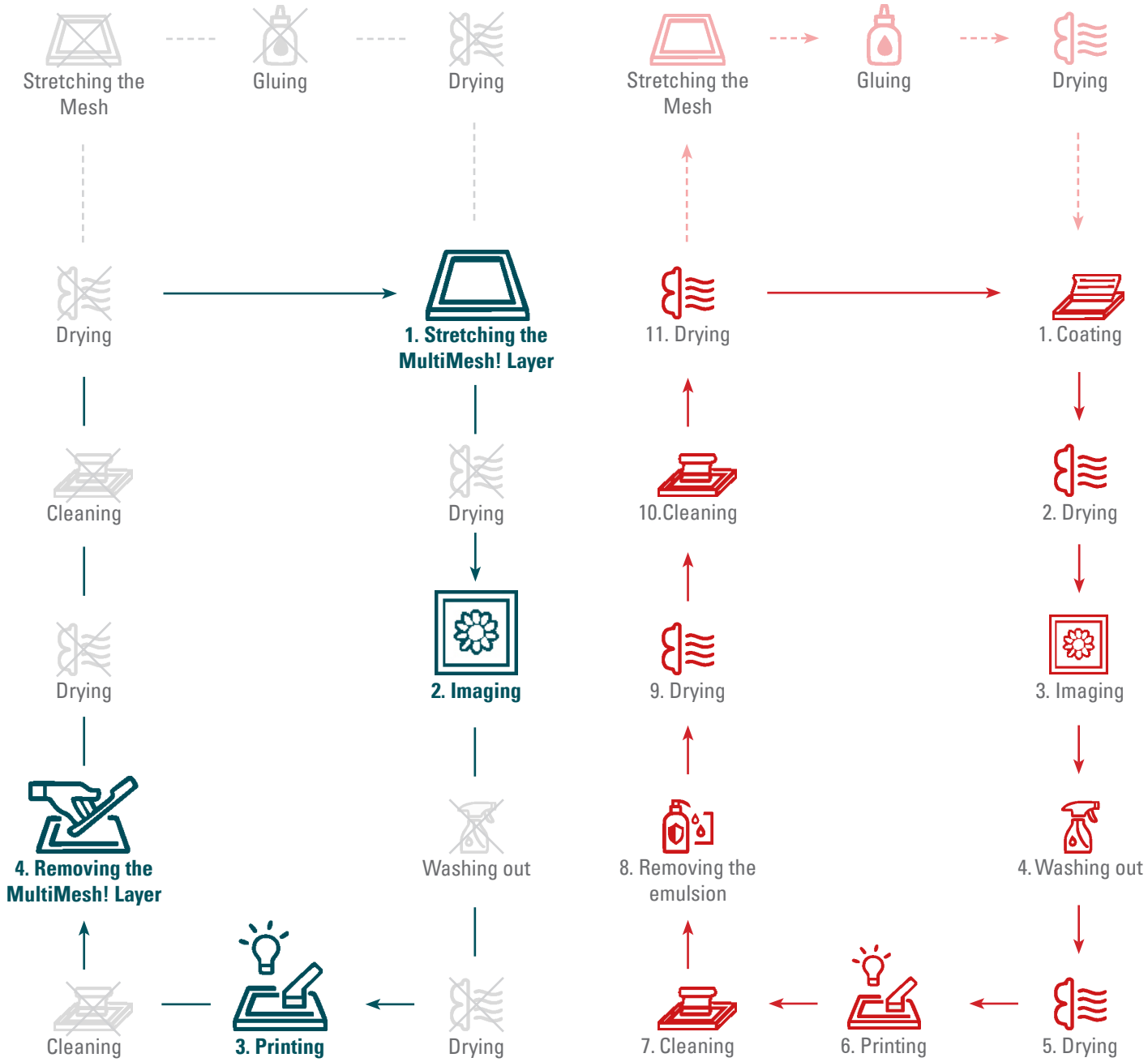
4 Process Steps

Process Time approx. 8 Minutes

Conventional Process

11 Process Steps

Process Time approx. 120 Minutes



— 4 MultiMesh! Process Steps
— 10 Redundant Process Steps

— 11 Conventional Process Steps
— 3 Preparatory Process Steps

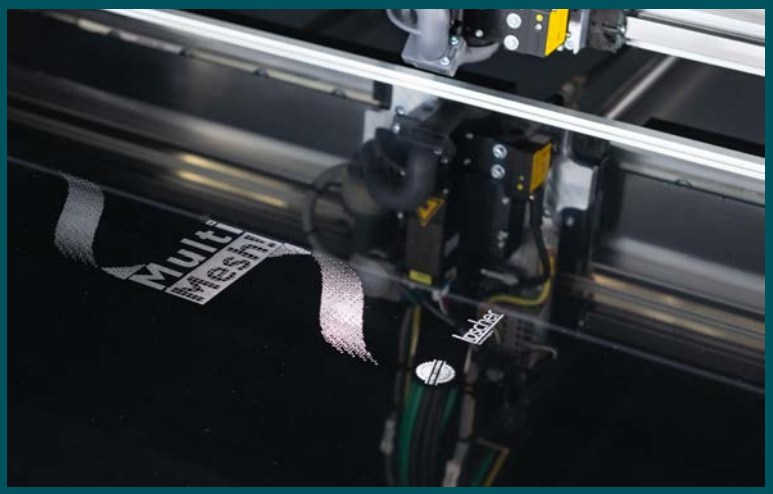
Advantages of the MultiMesh!

- UP TO 50% LOWER COSTS PER SCREEN
- NO MESH FABRIC OR EMULSION REQUIRED
- UP TO 70% FEWER WORK STEPS
- PROCESS REQUIRES NO WATER OR CHEMICALS
- ENVIRONMENTALLY FRIENDLY AND SUSTAINABLE SCREEN PRODUCTION
- DIFFERENT THREAD COUNTS AND MESH SIZES ON A SINGLE SCREEN
- NO YELLOW LIGHT NEEDED
- COMPLETE SCREEN PRODUCTION IN JUST A FEW MINUTES
- HIGH FLEXIBILITY
- ESPECIALLY SUITABLE FOR WATER-BASED INKS – A MAJOR ADVANTAGE OVER CONVENTIONAL SCREEN PRODUCTION

Advantages of the MultiMesh! Cube

- PROVEN AND TRUSTED TECHNOLOGY MADE IN SWITZERLAND
- NO CONSUMABLES SUCH AS MH LAMPS / UV LAMPS / LEDs OR DMD CHIPS
- OPERATES VIRTUALLY MAINTENANCE-FREE
- LOW ENERGY CONSUMPTION, LOWEST COST OF OWNERSHIP
- FAST AND DIRECT MULTIMESH! IMAGING FOR TEXTILE AND TRANSFER SCREENS
- EASY TO OPERATE, USER FRIENDLY AND CONVENIENT
- SPECIAL SCREEN PRE-REGISTRATION SYSTEM FOR ALL MAJOR BRANDS
- NEWLY DEVELOPED HIGH-TECH LASER SYSTEM





MultiMesh! Cube

The Laser System Behind MultiMesh!

Technical Specifications of the MultiMesh! Cube

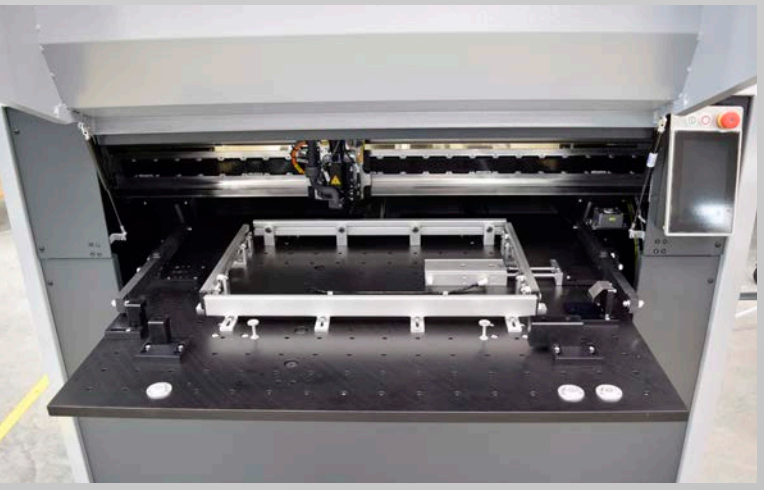
Machine Type	Laser Type	Number of Laser Diodes	Resolution	Weight
MultiMesh! Cube	TH, 974 nm	32 / 48 / 64	1'200 / 1'270 dpi	800 kg (1'764 lb)

General Information of the MultiMesh! Cube

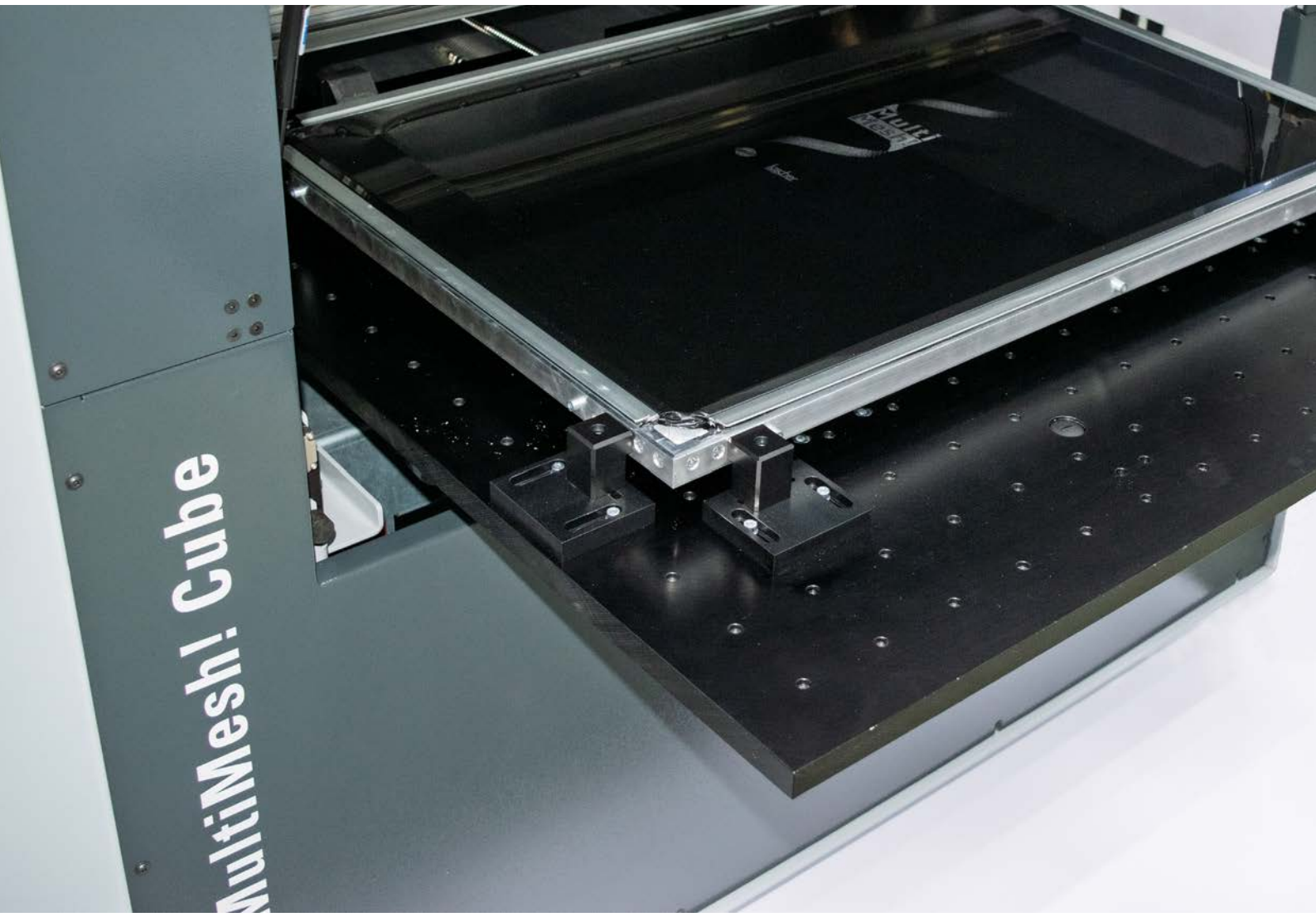
Feature	Specification
Standard Frame Size (L x W)*	**XS** 500 x 350 mm (19.7 x 13.8 inch) **S** 720 x 540 mm (28.3 x 21.3 inch) **M** 850 x 590 mm (33.5 x 23.2 inch) **L** 920 x 620 mm (36.2 x 24.4 inch) **XL** 1'100 x 850 mm (43.3 x 33.5 inch) **XXL** 1'200 x 950 mm (47.2 x 37.4 inch)
Machine Dimensions (L x W x H)	1'732 x 2'034 x 1'419 mm (68.2 x 80.1 x 55.9 inch)
Max. Imaging Area (L x W)	1'200 x 900 mm (47.2 x 35.4 inch)**
Power Supply	230 V / 50 - 60 Hz / 16 A
Power Consumption	approx. 0.5 kW / approx. 0.8 kW with extraction system
Ambient Conditions	40 - 65 % humidity at 18 - 25 °C (64.4 - 77 °F)
Room Conditions	**no yellow light required!, vibration-free floor**

*other frame sizes upon request

**1'100 x 900 mm (43.3 x 35.4 inch) > speed reduction







Lüscher Technologies AG
Industriestrasse 17
4665 Oftringen
Switzerland

Tel.: +41 62 767 76 76
contact@luescher.com
www.luescher.com

A HELIOGRAPH HOLDING COMPANY