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textile field

automatic screen printing machine

## SOPHIA



### *One in a kind!*

**SOPHIA** has been designed and built to satisfy a specific request of our customers: to have available a **single-colour automatic screen printing machine** for printing garments that is **compact in size**, **easy to use**, with an **excellent production per hour** and above all **low-cost**.

**SOPHIA** is particularly suitable for printing work and promotional clothing.

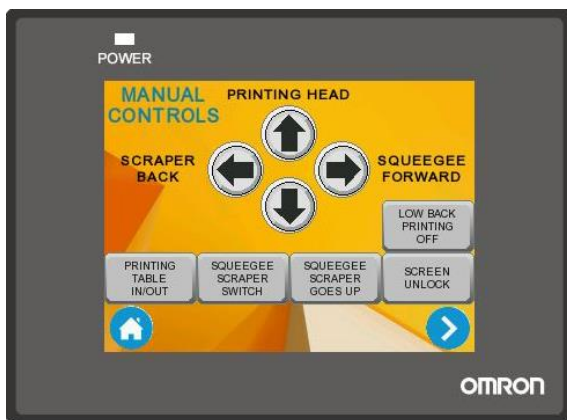
### **All new!**

The first generation of **SOPHIA** was released in 2019.

Thanks to the incredible success of this machine, in 2020 we introduced its second generation.

These are the main innovations introduced:

- Improved design
- Doubled production speed
- Introduction of a control panel equipped with a colour touch-screen LCD monitor
- Electronics controlled by a latest generation PLC
- Introduction of an Ethernet / Wi-Fi router for remote service
- The machine can also be controlled from tablets and smartphones (iOS and Android)



*LCD monitor*



*LCD monitor*

### **Moving printing table**

The need of our customers has forced us to completely rethink the concept of screen printing machine for fabrics.

The introduction of a **single mobile printing table** has allowed us both to extremely reduce the size of the machinery and to make the loading and unloading of the garment easy and fast.

### **Automatic ink recovery system**

Screen printing machines have a flaw: after some prints, the ink slips at the bottom of the screen and the user is forced to bring it back with a spatula. Thanks to the automatic ink recovery system, the user no longer must do this operation.

During printing, the squeegee and scraper move between two limit switches. When the system is activated, the squeegee and scraper make a longer stroke in order to get the ink that has slipped at the bottom of the screen and bring it back for subsequent prints.

The user can choose whether to activate the system after each print, after a certain number of prints or to deactivate it (this in case the length of the screen does not allow the use of the system).

### ***One router ... endless possibilities! (option)***



**SOPHIA** can be equipped as option with a latest generation **Ethernet / Wi-Fi router**.

Thanks to this device, the possibilities of the machine are greatly expanded.

#### **Remote service**

In the event of an electronic fault, Mismatic engineers can connect to the machinery directly from the offices in Milan (Italy) to check for any anomalies and, if needed, make the necessary changes to the software of the machine.

#### **The machine can also be controlled from tablets and smartphones**

Thanks to a **VNC server**, **SOPHIA** can also be controlled remotely from tablets and smartphones (iOS and Android). This technology is very convenient in some situations: for example, when inserting or removing the screen, or, to remotely monitor the production of the machinery.

#### **Free software updates**

Each software update of the machine is released free of charge to the customer.

#### **Safety**

All the data flow (in and out) of the router passes through a **secure VPN network with ISO 27001 Security Certification**.



<b>Technical data</b>	
<i>Printable materials:</i>	pre-cut and made fabrics as t-shirts, sweatshirts, shirts, slacks, socks, handkerchiefs, bandanas, pillows, bags and textile promotional items, etc.
<i>Max printing size:</i>	500 mm x 700 mm
<i>Max cycles/hour<sup>1</sup>:</i>	700
<i>Electrical supply:</i>	220 V single-phase, 50 Hz
<i>Installed power:</i>	0.5 kW
<i>Working pressure<sup>2</sup>:</i>	6÷7 bar
<i>Overall dimensions:</i>	(L) 1500 mm x (W) 700 mm x (H) 1600 mm
<i>Net weight:</i>	200 kg
<i>Usable screens:</i>	wooden or metallic frames
<i>Screen thickness range:</i>	up to 30 mm
<i>Usable inks:</i>	traditional screen printing inks

[1] Given values without considering the material loading/unloading time.

[2] The compressor is not included.

To improve the quality of the product, the Mismatic Company can do modifications in the manufacturing without any obligation to notify the same to the Customer.



### ***Standard features***

- **Printing head opening:** clamshell, pneumatic system
- **Double-stroke lift system:** the short stroke (50 mm) is used during printing, making the machine very fast; the long stroke (350 mm), on the other hand, is used for cleaning the screen, making this operation very easy for the user
- **[ ] screen-holder:** adjustable; possibility to adapt different sized screens
- **Screen insertion/extraction:** printing unit lateral side
- **Screen lock/unlock:** automatic
- **Squeegee and scraper independent speeds**
- **Squeegee and scraper speed:** adjustable by control panel
- **Squeegee and scraper pressure:** adjustable
- **Squeegee and scraper slope:** adjustable
- **Printing stroke:** adjustable by limit switches
- **Printing repeat system:** from 1 to 10 repeats
- **“Low back” printing system:** the scraper prints during the comeback. The advantage is clear: two prints are made in only one cycle. Moreover, this system is essential when you want to make thick prints.
- **Automatic ink recovery system**
- **Control panel on board equipped with colour touch-screen LCD monitor:** all monitor buttons are in your language!
- **Four working modes:** manual, step-by-step, single and automatic with timer

### ***Optional features***

- **Ethernet / Wi-Fi router**
- **Ethernet / Wi-Fi / 4G router:** the device has a SIM card (not included) slot

### ***The machine is equipped with***

- #1 printing table
- #1 squeegee
- #1 scraper
- #1 pedal to start the printing cycle