



FLUID DISPENSING TECHNOLOGY



FLUID DISPENSING TECHNOLOGY

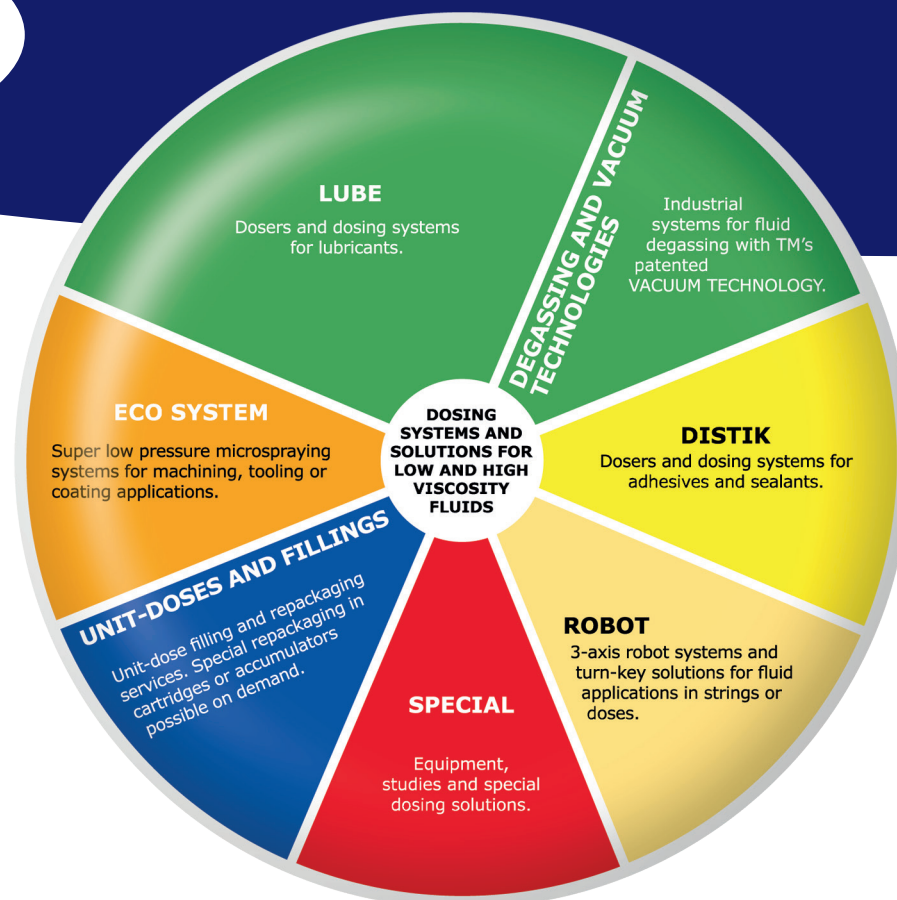
**MACHINES FOR FLUID
DOSING AND TREATMENT**



**FLUID
COMPONENTS**



**FLUID DOSING SYSTEMS
AND INTEGRATED SOLUTIONS**



CASTING MACHINES FOR 2K RESINS

M-DUO VP 4040

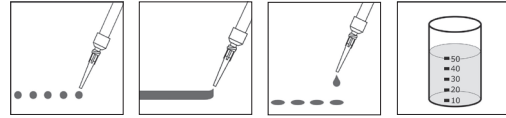


TM reserves the right to change technical data, pictures or technical descriptions without prior notice.

TM srl • Via Cicogna 12-14
40068 San Lazzaro di Savena (BO) Italy
Tel. +39 051 6511012 • Fax: +39 051 796966
E-mail: tm-italia@tm-italia.it • www.tm-italia.it

REV. 01

DISTIK



Suitable for dispensing applications of:

Silicone, polyurethane or epoxy based resins in liquid form.

Semi-automatic dispensing machine for liquid, pourable, medium or low viscosity 2K resins. This machine is recommended when the process requires a resin to be dispensed without air. The machine is suitable for polyurethane, epoxy or silicone resins, with or without abrasive suspended fillers (subject to evaluation of the technical data sheet and product sample).

After loading the two products (resin and hardener) into the 40lt tanks, the machine runs them through a mixing and vacuum cycle that can be customized based on the type of resin used, in order to reduce the presence of air as much as possible. Dosing takes place by pouring through a dispensing valve on which a disposable mixer nozzle is mounted, and the product can be dispensed either into the air, directly onto the component concerned, or into a special vacuum chamber.

The machine has a painted steel structure housing the two tanks, the electrical panel and the dosing system. Cycle start command via trigger or external command if the dosing head is mounted on an automation system.

The machine is not designed to handle flammable products, the electrical circuitry is not ATEX compliant.

The machine is marked **CE** and compliant with safety rules and law.



The HMI

The touch screen HMI allows managing the dosing parameters and mixing ratio, as well as customizing the vacuum cycle. It is possible to store different recipes. Upon request and subject to technical verification, it can be implemented with additional packages to communicate with the customer's PLC.

The dosing group

The dosing system is volumetric and, depending on the machine configuration, can be equipped with one or more nozzles.

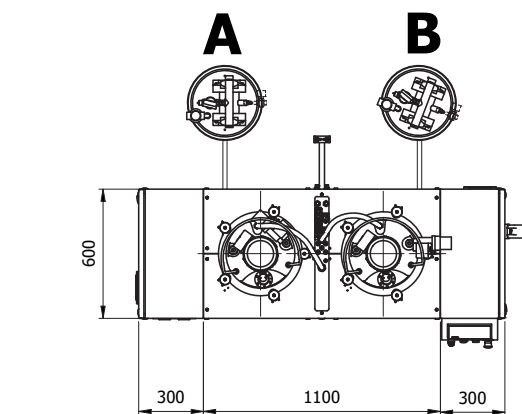
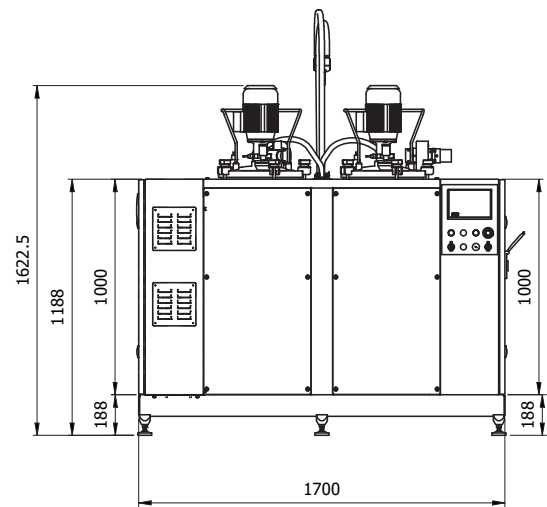
In the standard version, the machine automatically transfers the products directly into 40lt tanks to allow for a continuous cycle without interruptions.

The dispensing

The product is dispensed and mixed thanks to the disposable static mixing nozzle, mounted on the dosing head.

The size and model of the nozzle are configured according to the technical specifications of the products to be mixed.

The maximum effective flow rate will depend on the mixing ratio and the mixing capacity of the static mixer used.



Main technical characteristics

Power supply	230V, 50-60 Hz., single phase
Auxiliary circuits	24V DC
Air supply	5-6 bar
Power	4 KW approximately
Standard pneumatics	SMC or FESTO

Standard available models

The resin dispensing machine **M-DUO VP 4040** is available in different configurations:

M DUO VP 4040 1CH	40lt resin tank + 40lt hardener tank + 1 doser
M DUO VP 4040 2CH	40lt resin tank + 40lt hardener tank + 2 dosers
M DUO VP 4040 4CH	40lt resin tank + 40lt hardener tank + 4 dosers

Software optional

- Industry 4.0 compliance according to customer's specific requirements.
- Barcode, QR reader.
- Dialogue with external PLC or supervisor with specified protocols, to be defined in offer.

Further optional implementations

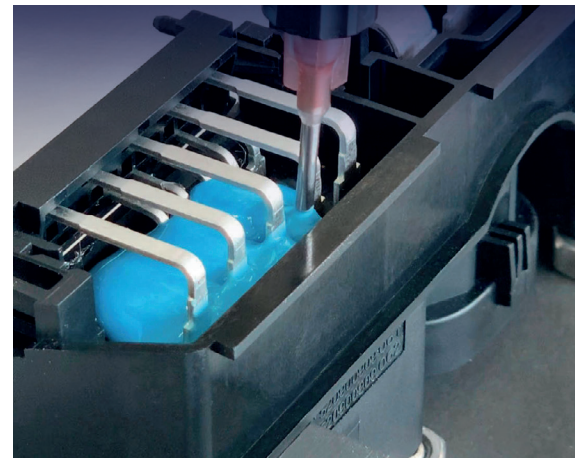
- Heating of the pipes: heating of the resin tank and all pipes up to the dosing head.
- Automatic tank loading.
- Implementation with Giotto series Cartesian machines.
- Optional gun handle with integrated trigger control.
- Balanced cantilever pantograph.



Electronic circuit potting



Dispensing onto micro-switches



Potting on connectors



Optical bonding

APPLICATIONS

M-DUO VP 4040 machines can be used in many dispensing and dosing applications and assembling processes.

Typical applications are:

SEALING

Liquid sealing and liquid gaskets for electronics and engine assembly.

Typical application sees the machine equipped with volumetric electric continuous dosers gear-based.

GLUING

Structural gluing of parts.

Typical application sees the machine equipped with volumetric electric linear piston-based or screw-based dosers.

RESIN CASTING/POTTING

Potting, casting or injection of 1k or 2k resins for electronic elements and PCBs.

Typical application sees the machine equipped with volumetric electric linear piston-based or screw-based dosers.

MICRO-DOSING

Micro-dosing of lubricants during mechanical assembly process, which can be contact, contactless or micro-spray.

Typical application sees the machine equipped with volumetric pneumatic dosers.

FILLING

Dosing and precision filling of hydraulic or mechanical kinematics.

Typical application sees the robot equipped with volumetric electric linear piston-based dosers.

OPTICAL BONDING

Precision dosing and filling of resins during the LCD panel manufacturing process.