

TM designs, manufactures and sells dosing components, systems and machines for liquids and viscous fluids. TM is a dynamic industrial reality, a close-knit team that integrates the experience from historical minds and the energy of the youth, all coordinated by a great professionalism.

TM was born on 2000 with the aim to become an excellence center for fluid dosing applications, and today it has gathered a unique know-how, covering all possible aspects and complexities of this trade.

This has been made possible also because TM lives and operates within the most important district of automation for industry, that of Bologna (Italy), worldwide known for productive skills and design creativity.

TM has several international patents, and several more are presently pending, which represent an intellectual property and tradition that gathers innovative machines and technologies, studied to offer a concrete and exclusive solution to its customers.

TM is in fact structured to provide quick responses to a continually growing and expanding market, always looking for novelties and performance, efficiency and control, and today TM is to its customers more a partner than a plain supplier.

TM team with professionalism follows each customer all along their project, from early phases with laboratory work to project phases where the drawings are laid down, to prototyping and until the final testing of the chosen solutions and after sale service.

TM's work method in all processes guarantees the highest quality standards, together with the possibility to completely customize products and solutions, because the world of today -and of tomorrow- wants custom.

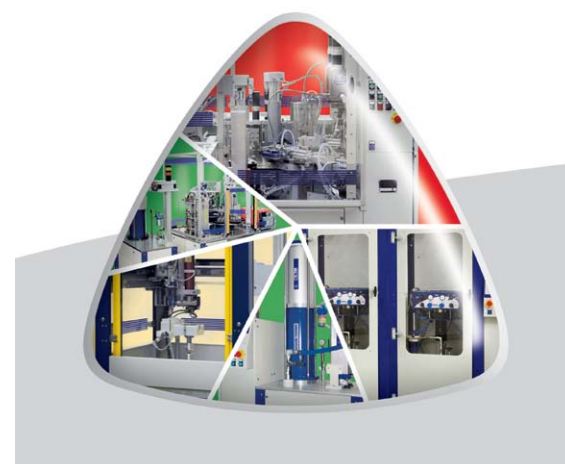
What remains a constant standard is, instead, our attention to details. Always.

TM designs and manufactures dosing machines for fluid applications, from liquid sealing to resin encapsulating applications and precision filling passing through lubricating, gluing and microsyringing, using TM's wide technologies at best according to viscosities and application requirements.

The solutions offered by the Italian Manufacturer from Bologna cover the whole range of production phases, starting from patented vacuum fluid treatments to eliminate air bubbles from within the fluid and work with "zero rejects" philosophy and dose certainty. For example VACUUM TOWER machines are designed as a complete system to work through TM's patented vacuum technology for low to very high viscosities. Common feature of all solutions "made in Bologna" is flexibility: TM's machines, though sharing the same building principles, are totally configurable and adaptable to different needs and allow different degrees of automation and control accordingly. As an example the M-ONO and M-GEMINI are two fluid application dosing machines that share the same principles and architecture: the first for one-component fluids and resins, the second for two-component fluids and resins. They both can be integrated in line with automated isles and completed by robots. TM is also able to study and design special custom machines, like M-GIOTTO, a machine based on 3-axis Cartesian robot developed by TM with extreme flexibility, that can be configured specifically according to the single application and can be totally reconfigured any time for other purposes. The machine can be easily integrated in new or existing production contexts as well as a stand-alone unit and can be configured with a wide range of accessories from barcode readers to RFID.



MACHINES FOR FLUID DOSING AND TREATMENT



FLUID DOSING SYSTEMS AND INTEGRATED SOLUTIONS



FLUID DOSING COMPONENTS



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



MACHINES FOR FLUID DOSING AND TREATMENT



DEGASSING MACHINES

Machines for fluid degassing/de-aerating processes. Suitable for lubricants and damping silicone fluids at low, medium, high or very high viscosity. TM's patented process with closed fluid circuit, which automatically loads a batch from pump/tank, to reduce the risks of contamination or oxidation of the treated fluid. Working capacity up to 4 liters per cycle, depending on the model. Closed discharging and tank/accumulator filling under vacuum conditions to preserve the fluid when the degassing process is finished and the machine fills the detachable accumulators with the treated fluid. Automatic filling process of SB-AUTO accumulator tanks or cartridges.

AXIS ROBOT MACHINES

All 3-axis robot system machines made by TM feature TM's own control logic with maximum flexibility and ease of programmability and re-programmability, which start from cad-generated files. Machines can be standalone or interfaced with external managing software to exchange signals. They can be predisposed for barcode readers for program selection or format change. The machine structure shell is in solid steel, sturdy and suitable for rough working industrial environments. Standard models range up to 800x1800mm working area, open also to custom size machines for special purposes.

- 1- MOD. GIOTTO 300 WORKING AREA 300X300MM
- 2- MOD. GIOTTO 600 WORKING AREA 600X600MM
- 3- MOD. GIOTTO 1800 WORKING AREA 800X1800MM

DOSING MACHINES ONE-COMPONENT FLUIDS

Dosing systems for one-component fluids. Suitable for greases, pastes, silicones, resins with medium- to high- viscosities. Fully integrated system which includes an extrusion pump for pails from 5 to 50 liters, inserted within a containment and protection cabin. On the side is the dosing system control panel with touch screen to manage the dosing head(s), which are usually electric volumetric dosing groups with various technologies available. Dosing head(s) can be integrated within the machine or remoted on an external automation or robot.

DOSING MACHINES TWO-COMPONENT FLUIDS

Dosing systems for two-component fluids. Suitable for two-component silicones and resins with medium- to high- viscosities. Fully integrated system which includes two twin extrusion pumps for pails from 5 to 50 liters, inserted within two containment and protection cabins. On the side is the dosing system control panel with touch screen to manage the dosing head(s), which are usually two-component electric volumetric dosing groups with various technologies available. Dosing head(s) can be integrated within the machine or remoted on an external automation or robot.

MACHINES DISPENSING TWO-COMPONENTS RESINS

Machine for atmospheric pouring of two-component resins that are liquid and self-levelling. Electric control panel and touch-screen operator panel, from which dosing parameters can be set. Volumetric dosers with independent electric motors per each dosing channel ensure flexibility in managing mixing ratios. The head can be handled or installed on a counterbalance or automation. Suitable for connection to vacuum cycles. Also available in version with automatic degassing. Dispensing status control devices. Tanks with silica gel dryer and minimum level sensors. Pneumatic agitator and recirculation system to keep the resin constantly stirring.

VACUUM-BASED DOSING MACHINES

Custom machines and technologies for precision filling or encapsulating processes under vacuum conditions, for electronics, cinematics or hydraulics like shock absorbers, hinges or dampers. The Vacuum Filling family uses TM's patented degassing processes and vacuum injection techniques which are developed custom for each project and component, so the customer is followed personally at every step and the best results are guaranteed. Possibility to develop standalone units or automated units to be inserted within automated assembly lines.

M-VACUUM TOWER



M-GIOTTO



M-ONO



M-GEMINI



M-POTTING



M-VACUUM FILLING

