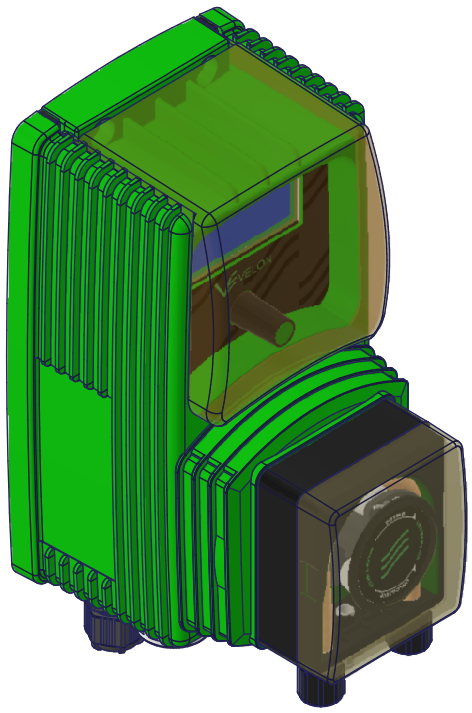
# “VELON MF”





**VELON MF is the most complete model in the range, designed for complex applications that require maximum versatility. Thanks to its multifunction stepper motor and the availability of numerous operating modes, it easily adapts to scenarios where dynamic and highly configurable dosing is needed.**

### Navigation
The backlit LCD display and front encoder allow for simple and intuitive user interaction, even with a wide range of options. The menus guide the user step by step, simplifying programming and reducing setup time.

### Dosing
The pump offers as many as 10 operating modes. This variety makes it suitable for both standard applications and more sophisticated processes that demand flexibility and adaptability.

### Additional Functions

The pump integrates additional functions such as tank management to ensure operational continuity and avoid unexpected downtime. A multifunction operating mode is available for specific job selection. An optional alarm adds an additional level of safety. Advanced electronics ensure consistent precision even in the presence of load variations.

### IOT and Services
The pump stands out for its connectivity: it supports WiFi, OTA firmware updates, and can be managed via dedicated digital platforms (ERMES via web and MyEmec via mobile app). This allows for monitoring and control even remotely, making it perfect for users who require continuous supervision.

ENCODER

## Main Features

- LCD display with backlighting that adapts to the pump status
- Menu management and dosing functions via encoder
- Inputs: MODBUS RTU, multifunction input, level
- Outputs: alarm (optional)
- Latest-generation high-performance microprocessor
- Firmware update (via OTA)
- WiFi & Bluetooth connectivity
- PC + ABS enclosure
- Operating ambient temperature: 10 to 45°C (55 to 113°F)
- Additive temperature: 0 to 50°C (32 to 122°F)
- Transport and storage temperature: -10 to 50°C (14 to 122°F)
- Installation class II (IEC / EN 61010-1)
- Pollution level 2 (IEC / EN 61010-1 and IEC 60664-1)
- Protection IP 65 (IEC / EN 60529)
- RH% operating: 85% at T<=40°C; 70% at T=50°C - NC)
- Power supply: wide-range 100 to 240VAC, 12VDC, 24VDC
- Remote management, monitoring, and control via web service platforms (ERMES) and apps (MyEmec)

| MODE | DESCRIPTION |
|---|---|
| CONSTANT | The pump doses at a constant frequency based on the "LPH" (liters per hour) values set during the programming phase. |
| CC per PULSE | The pump doses the set quantity of product with each pulse received. |
| PPM | The pulses provided by a meter connected to the pump determine the dosage based on the set PPM value. The concentration of the dosed product and the quantity per stroke must be set during the programming phase. |
| PERCENTAGE | The pulses provided by a meter connected to the pump determine the dosage based on the set PERC (%) value. The concentration of the dosed product and the quantity per stroke must be set during the programming phase. |
| MLQ | The pulses provided by a meter connected to the pump determine the dosage based on the set MLQ (milliliters per quintal) value. The concentration of the dosed product and the quantity per stroke must be set during the programming phase. |
| BATCH | The pulse provided by an external contact initiates the dosage of the quantity of product set during the programming phase. |
| VOLT | The voltage supplied to the pump (via the input signal) determines the proportional dosing based on the two minimum and maximum values at which the minute steps were set during the programming phase (0 to 10 VDC). |
| PULSE | The pump doses proportionally between two values: high and low. This operating mode is used with instruments with a pulse output |
| WEEKLY PROGRAM | This operating mode is used to program the pump's weekly dosing. |
| EXT CONSTANT | This operating mode is enabled in the STAND-BY menu (external input). An external signal starts constant dosing (QUANTITY) at the set flow rate. The operating mode displayed is EXT CONSTANT. The contact can be N.O. or N.C. |

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Specifications subject to change without notice | R2025

emec SIMPLE AS WATER

IQNET CERTIFIED MANAGEMENT SYSTEM
qualityaustria SYSTEM CERTIFIED
ISO 9001:2015 No.07728/0
ISO 14001:2015 No.00997/0
ISO 45001:2018 No.01121/0

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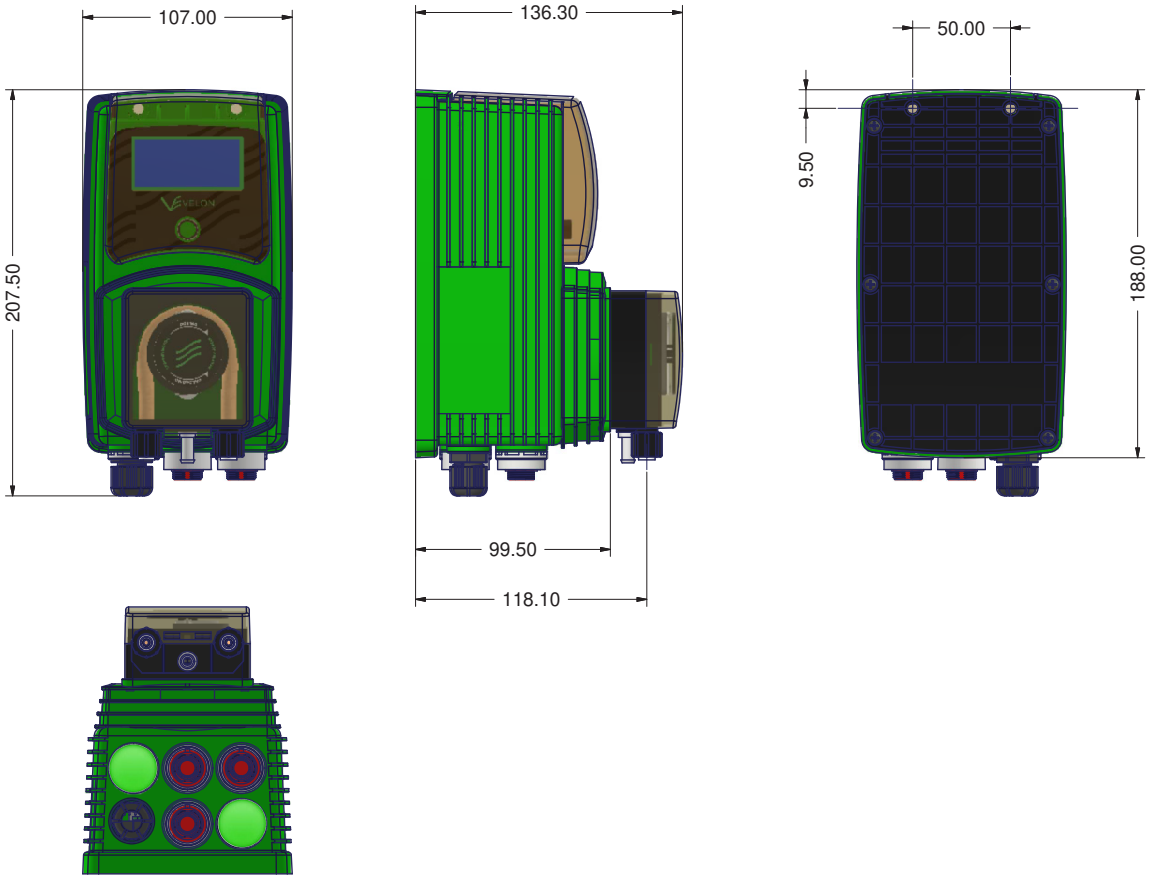
## Peristaltic Features

| DOSING CAPACITY | | | |
|---|---|---|---|
| **Pressure** | **RPM Range** | **Flow Range (Tubo Ø1,6x1,6)** | **Flow Range (Tubo Ø4,8x1,6)** |
| bar (psi) | rpm | l/h (gal/h) | l/h (gal/h) |
| 2 (29) | 1 to 100 | 0,018 to 1,8 l/h \| 0,0047 to 0,47 gal/h | 0,12 to 12 l/h \| 0,0317 to 3,17 gal/h |

| INTERFACE | POSITION |
|---|---|
| **ALARM (OPTION)** | up / left |
| **POWER SUPPLY INPUT** | down / left |
| **LEVEL INPUT** | up / right |

| CONSTRUCTION MATERIALS | |
|---|---|
| **ELEMENT** | **MATERIAL** |
| Pump’s body | PC / ABS |
| Cover | PC |
| Dust Cover Bushing | PEEK / PPS |
| Hose Clamp<br>Hose Connector<br>Hose Vent | PVDF |
| Peristaltic Roller | POM DELRIN |
| Peristaltic Hose (Long Lasting) | TPV |

## Dimensions (mm)

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