Technical Data Sheet

# "WT PER Stepper"

WT PER Stepper is a complete, advanced solution for controlling and **dosing chemicals (biocide and inhibitor) in evaporative cooling towers.** The system accurately monitors and regulates water conductivity, a key parameter for maintaining system efficiency and **preventing scaling and corrosion**. It features two peristaltic pumps for dosing the **biocide and inhibitor, which are essential for water treatment and disinfection as they prevent the growth of bacteria and algae.**

Advanced chemical activation allows for safe and optimized dispensing based on programmed cycles or detected conditions. **The system also integrates corrosion and scaling inhibitor dosing, ensuring continuous protection of metal surfaces and piping.**

WT TOWER PER Stepper automatically purges water based on the detected conductivity value, preventing the buildup of dissolved salts and ensuring optimal chemical balance in the cooling water circuit.

**Remotely fully controllable.**

020925

## Main features

- Large LCD screen with visual control system (backlight color based on device activity)
- Encoder knob for instrument control
- 2 PC/TPV peristaltic stepper motor dosing pumps
- PC+ABS case
- Flow control input
- Conductivity reading
- 0 / 10000 µS (ECD)
- 0 / 3000 µS, 0 / 30000 µS (ECDIND)
- 0 / 10000 µS (ECDSIND)
- Temperature reading: 0 to 100°C
- Alarms: level, mains voltage, no flow
- Digital inputs settable as N.O. or N.C.
- Delayed dosing start (max 60 minutes)
- Permanent data storage with system log viewable on the display
- Bluetooth LE / 2.4GHz WiFi connection for APP and remote control
- Firmware upgradeable (via OTA)
- Installation class II (IEC / EN 61010-1)
- Pollution level 2 (IEC / EN 61010-1 e IEC 60664-1)
- IP 65 protection (IEC / EN 60529)
- Power supply: widerange 100 to 240 VAC; 50/60 Hz

**Inputs:**

- Conductivity Probe
- Water Meter (inlet)
- Level 1 & 2
- Flow Sensor
- Standby

**Outputs:**

- Alarm (free contact relay)
- MODBUS RTU Port
- Pump 1 & 2
- Vac out 1 5A (solenoid valve / other)

**Programming Mode Biocide**
Biocide 1 & 2 (weekly 1, 2, 3, 4)
Daily (7 programs)
Dosing with water meter (time based)
**Programming Mode Inhibitor**
Feed and Bleed
Feed as a % of bleed
Feed as a % of time
Dosing with water meter (time based)
Dosing with water meter (constant ppm)

Via Donatori di Sangue, 1 - 02100 Rieti (Italy)
+39 074622841 | emecpumps.com

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

# “WT PER Stepper”



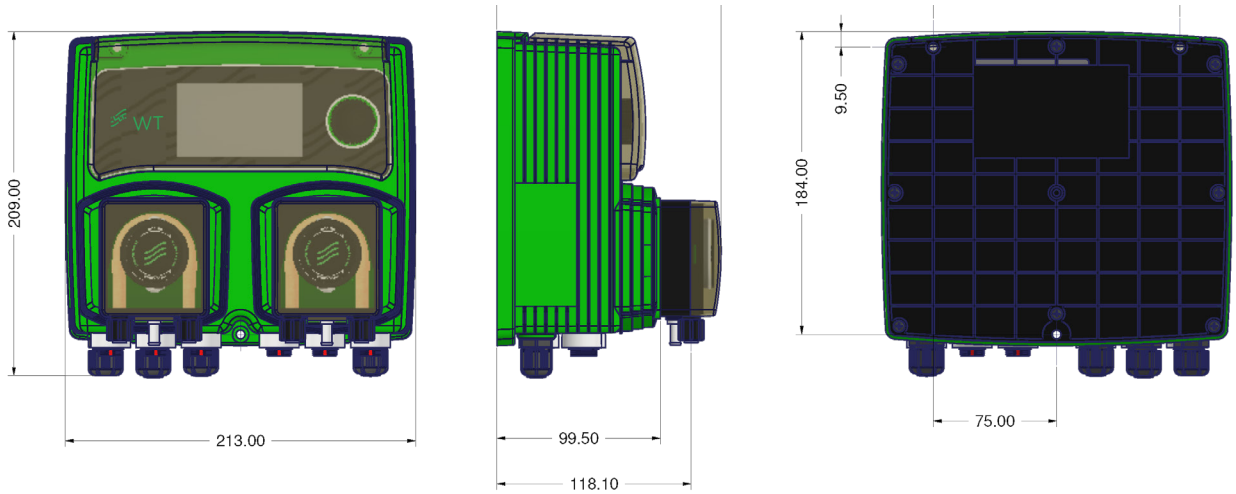
## Peristaltic features

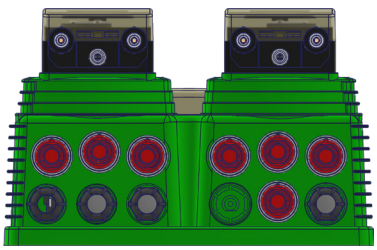
| PERISTALTIC DOSING CAPACITY / HOSE Ø4.8X1.6 | | |
|---|---|---|
| **Pressure** | **Flow Range** | **RPM Range** |
| bar (psi) | l/h (gal/h) | rpm |
| 2 (29) | 0,12 to12 l/h \| 0,0317 to 3,17 gal/h | 1 to 100 |

| PERISTALTIC DOSING CAPACITY / HOSE Ø1.6X1.6 | | |
|---|---|---|
| **Pressure** | **Flow Range** | **RPM Range** |
| bar (psi) | l/h (gal/h) | rpm |
| 2 (29) | 0,018 to 1,8 l/h \| 0,0047 to 0,47 gal/h | 1 to 100 |

| PERISTALTIC 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<br>(Long Lasting) | TPV |

## Dimensions (mm)



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