



PDS

PERMANGANATE DOSING SYSTEM

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PDS

PERMANGANATE DOSING SYSTEM

PDS (Permanganate Dosing System) is a **compact, fully automatic system** designed for the preparation and continuous dosing of **Sodium Permanganate (NaMnO₄)** and **Potassium Permanganate (KMnO₄)** solutions, starting from **liquid solutions**, in drinking water or for industrial applications.

It is intended for applications where **reliability, dosing accuracy**, and **operational continuity** are required. The system allows **flow-proportional control** and automatic management of the oxidizing agent via a touchscreen panel.

The system can be integrated with **PermaTest**, a solution for continuous residual analysis, ensuring complete control of the oxidation process.

APPLICATION FIELDS

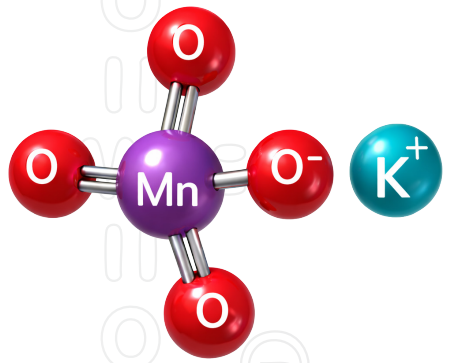


MAIN FEATURES

- Permanganate dosing setpoint in mg/L
- Automatic flow-proportional dosing
- Automatic calibration of dosing pumps
- Manual mode with preset flow rate
- Flow-proportional control via 4-20 mA signal
- PID control with integrated flow meter
- PID control of dosing pumps
- Flow monitoring and process alarms

AVAILABLE CONFIGURATIONS

POTASSIUM PERMANGANATE



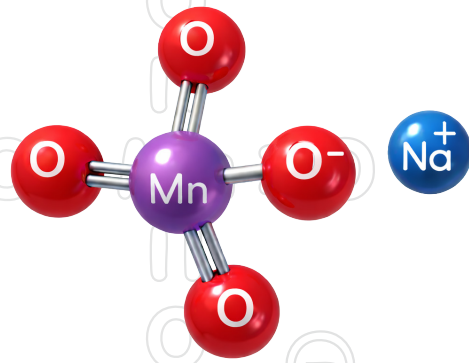
WHERE

- ✓ Removal of iron and manganese
- ✓ Oxidation of hydrogen sulfide (H₂S)
- ✓ Odor control and organic compound oxidation
- ✓ Pre-oxidation in drinking water treatment

WHY

- ✓ High chemical stability of the solution
- ✓ Lower aggressiveness toward certain materials
- ✓ Good long-term storage stability
- ✓ Lower maximum concentration in solution

SODIUM PERMANGANATE



WHERE

- ✓ Industrial water treatment
- ✓ Environmental remediation and contaminated soil treatment
- ✓ Oxidation of complex organic compounds
- ✓ Systems with continuous and controlled dosing

WHY

- ✓ Much higher solubility
- ✓ Higher operating concentrations
- ✓ Greater fluidity and ease of pumping
- ✓ Higher oxidizing reactivity
- ✓ Particularly suitable for continuous systems

SYSTEM COMPONENTS



Dosing pumps
(solenoid, stepper,
motor-driven)



Floor-mounted
installation



HMI Touch
Screen 7"



Integrated
ultrasonic flow
meter



Communication
Ethernet
Modbus
TCP/IP



Reagent level
sensor with
automatic
shutdown



Structure with
IP65 protection
rating

TECHNICAL SPECIFICATIONS

Power supply 230 Vac ±10% - 50/60 Hz

Power consumption Approx. 100 W

Protection rating IP65 / NEMA 4

HMI display 7" touchscreen

Inputs

- 4-20 mA analog signal (flow rate)
- Remote Start/Stop
- Level alarm

Operating temperature 0 ÷ 40 °C

