



DOSING SYSTEMS

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General Overview

Dosing systems are fully integrated skid-mounted units designed for precise preparation, storage and controlled injection of chemicals into water and wastewater treatment processes.



Each dosing skid is engineered to provide:

- Accurate flow-proportional chemical dosing
- Stable and continuous operation
- Safe chemical handling
- Easy maintenance access
- Compact and transportable design

System is delivered as a complete plug & play unit including tank, dosing pumps, piping, valves, instrumentation and control panel.



TYPICAL APPLICATION AREAS & CHEMICALS

Water Treatment

- SWRO & BWRO systems
- Ultrafiltration / MF systems
- Cooling water systems
- Boiler feed water systems

Chemicals

- Antiscalant – Scale prevention in membrane systems
- Sodium Hypochlorite (NaOCl) – Disinfection
- Acid (HCl / H₂SO₄) – pH reduction
- Caustic (NaOH) – pH increase
- SMBS (Sodium Metabisulfite) – Dechlorination before RO

Wastewater Treatment

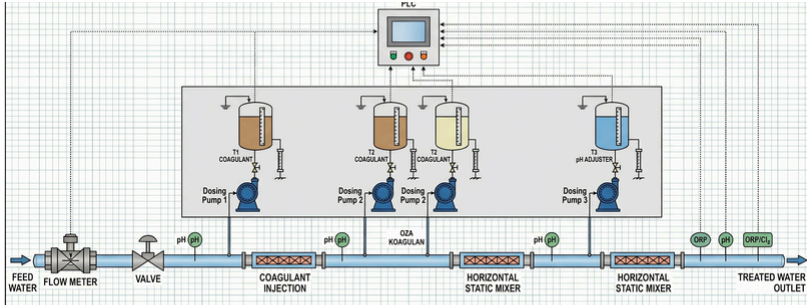
- Coagulation & flocculation
- pH adjustment
- Odor control
- Dechlorination
- Phosphorus removal

Chemicals

- Ferric Chloride (FeCl₃) – Coagulation / Phosphorus removal
- Lime (Ca(OH)₂) – pH correction / Precipitation
- Sodium Hypochlorite – Disinfection
- Polymer solutions – Sludge dewatering
- PAC / Alum – Coagulation



DESIGN PARAMETERS



Parameter	Range
Flow Rate	0.5 – 500 L/h
Pressure	2 – 20 bar
Tank Volume	100 – 5000 L
Control Mode	Manual / 4-20 mA /
Installation	Indoor / Outdoor

SYSTEM COMPONENTS



Chemical Storage Tank

- HDPE / PP / PE / FRP / ST37 material options
- Atmospheric or closed type
- Level indicator (visual + transmitter optional)
- Bunded design (chemical containment tray optional)



Dosing Pumps

- Diaphragm metering pumps
- Solenoid driven pumps
- Plunger type high pressure pumps
- Features:
 - Adjustable stroke length
 - Frequency control
 - 4–20 mA control option
 - Pulse input proportional dosing
 - Pressure up to 20 bar (higher on request)



Piping & Valves

- uPVC / CPVC / PP / HDPE / SS316
- Calibration column (optional)
- Back pressure valve
- Pulsation dampener (optional)
- Injection quill
- Pressure relief valve (optional)
- Isolation valves

Instrumentation

- Level transmitter
- Flow switch
- Pressure gauge
- Flow meter (optional)
- pH / ORP integration (optional)



Control Panel

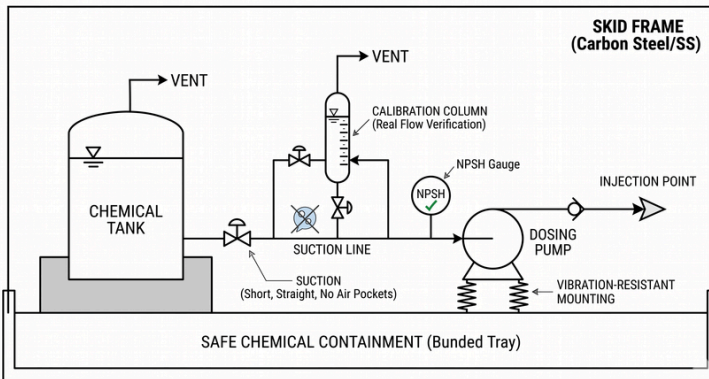
- Local control panel (IP54/IP65)
- Manual / Auto operation
- PLC based system (optional)
- Remote monitoring
- Alarm outputs
- Interlock with main process

DOSING SKID DESIGN PHILOSOPHY

A proper dosing skid is not just a pump mounted on a tank.
It must include:

- Safe chemical containment
- Stable base frame
- Vibration resistant pump installation
- Proper suction line design (short, straight, no air pockets)
- Calibration column for real flow verification
- Adequate NPSH considerations
- Proper venting

All units are assembled on carbon steel epoxy painted or stainless steel skid frames.





WHY CHOOSE US?



QUICK
FEEDBACK



BEST
COMPETITIVE
PRICING



CONTINUOUS
TECHNICAL
SERVICE
SUPPORT



WESTERN
EUROPE
EQUIPMENT

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OPTIONAL FEATURE

- Double pump system (Duty + Standby)
- Automatic switchover
- Heater & insulation (cold climate)
- Mixing agitator
- Safety shower integration
- ATEX design
- Containerized dosing unit



WHY SKID-MOUNTED SYSTEM?

- Easy and Fast installation
- Reduced site labor
- Factory tested (FAT)
- Compact footprint
- Standardized quality
- Easier maintenance



WHY USSU COMPANY

We engineer based on real process conditions:

- Chemical dosing calculations (ppm-based)
- Minimum and maximum flow scenarios
- Pressure fluctuation analysis
- NPSH verification
- Chemical compatibility selection

This means the system performs not only on day one — but years later.





SERVICES TO:




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*We're excited to
work with you*


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Prof. Dr. Habip ASAN
Türk Patent ve Marka
Kurumu Başkanı

**TÜRK
PATENT**
TÜRK PATENT VE MARKA KURUMU