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CHEMICAL PACKAGE TREATMENT

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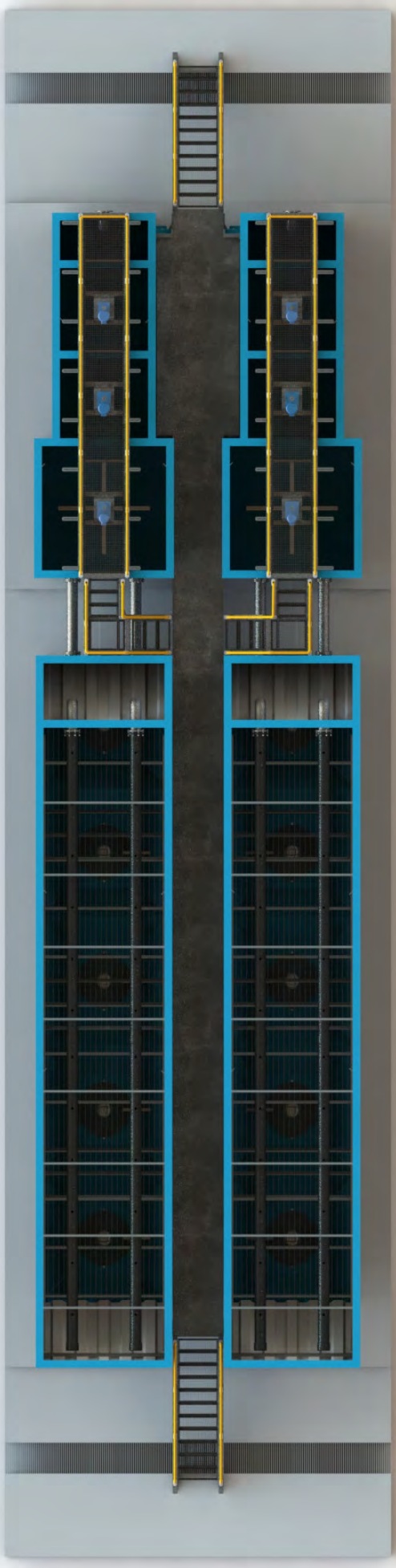


CHEMICAL PACKAGE TREATMENT

General Description and Intended Use

The wastewater occurred due to activities of the industrial companies in their production processes generally contains non-biodegradable pollutants. For treatment of wastewater industrial companies having various characteristics, the chemical treatment is required when the biological treatment is not sufficient or when the biological treatment cannot be used singly due to toxicity content of the wastewater.

Generally, chemical wastewater treatment systems consist of fast / slow mixing tanks and mixers, sediment tank, chemical solution preparation and dosing units, electrical automation systems, weir etc.

Working Principle Of Equipment

The chemical treatment is a treatment method which ensures sinking of the materials solved in water or solid materials suspended by breaking their load balance. The chemical substances (coagulants, flocculants, polyelectrolytes etc.) are added into the wastewater in suitable pH value and the pollutants are settled as sludge and separated from the water. Generally, the chemical package treatment is a compact unit containing all steps such as coagulation, flocculation and sedimentation etc.

The chemical package treatment is designed interrupted or continuous according to their capacities.

- The continuous type chemical package treatment systems are preferred in high capacities. The package treatment system consists of coagulation, flocculation and sedimentation parts. In this system, there is a continuous water entry and treated water exit. The chemicals are also dosed under pH control.
- The interrupted chemical package treatment systems are preferred in low capacities. The coagulation, flocculation and sedimentation processes are carried out in the same tank respectively. The chemical reactor tank has a volume which can take all wastewater daily.

TECHNICAL SPECIFICATIONS

- It treats the wastewater in any flow rate in parallel uses.
- It is specially designed according to the wastewater to be treated and the application point.
- The addition of the chemical coagulant solutions to the system is automatically performed via pH-meters in the system.
- The fast mixing, slow mixing and sedimentation parts constituting the package treatment unit are produced in different volumes in order to provide different resting periods in accordance with the working principle of the chemical treatment.
- The fast mixers are generally selected in ~90-110 rpm.
- The slow mixers are generally selected in ~20-25 rpm.
- The sedimentation tank bottoms are produced conical and inclined in the correct angle so, the sludge in the sedimentation unit can settle and the settled sludge can be collected from one point.
- A feeding funnel is built into the tank inlet in order to slow down the speed of the sludge fed into the sedimentation tank and ensure it settles faster.
- The chemical package treatments consist of 2 fast mixing tanks, 1 slow mixing tanks and 1 sedimentation tank in general.
- The sludge accumulated at the bottom of the chemical sedimentation tank is absorbed with the time-controlled valves and a pump and sent to the sludge condensation units.
- In case of necessary for the smells to be occurred in the chemical treatment tank, the tank can be produced with a cover.

ADVANTAGES

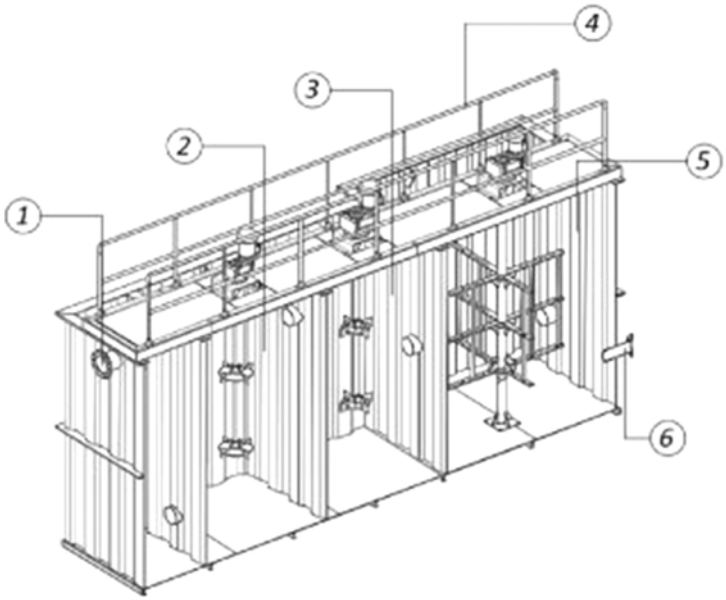
- Project Based Special Design Possibility,
- Automation Operation,
- Compact Design,
- Easy Transportation and Mounting / Demounting,
- Long Operation Life,
- Possibility to Control and Follow the System Operation Over SCADA,
- Resistant Heavy-Duty Design,
- Easy Maintenance Possibility,
- Suitable for Outdoor Operation,
- Low Operation and Maintenance Costs.

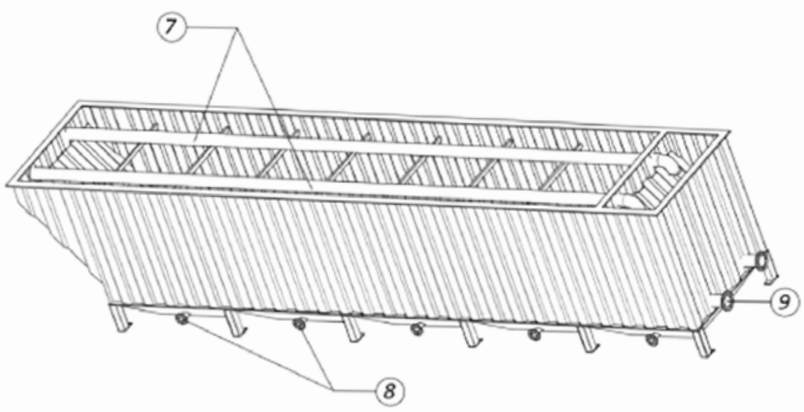
Material Details

- Tank: Produced as S235JR + Epoxy Paint.
- Upper Cover: Produced as S235JR + Epoxy Paint or CTP.
- Platform: Produced as S235JR + Epoxy Paint.
- Mixers: They can be produced as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).

"Different materials can be preferred in accordance with the request of the customer."

No	Part Name
1	Wastewater Feeding Pipe
2	Fast Mixing 1st Part
3	Fast Mixing 2nd Part
4	Intervention and Maintenance Platform
5	Slow Mixing Part
6	Outlet Pipe
7	Sedimentation Discharge Pipe
8	Sludge Outlet Connection
9	Chemical Sedimentation Connection



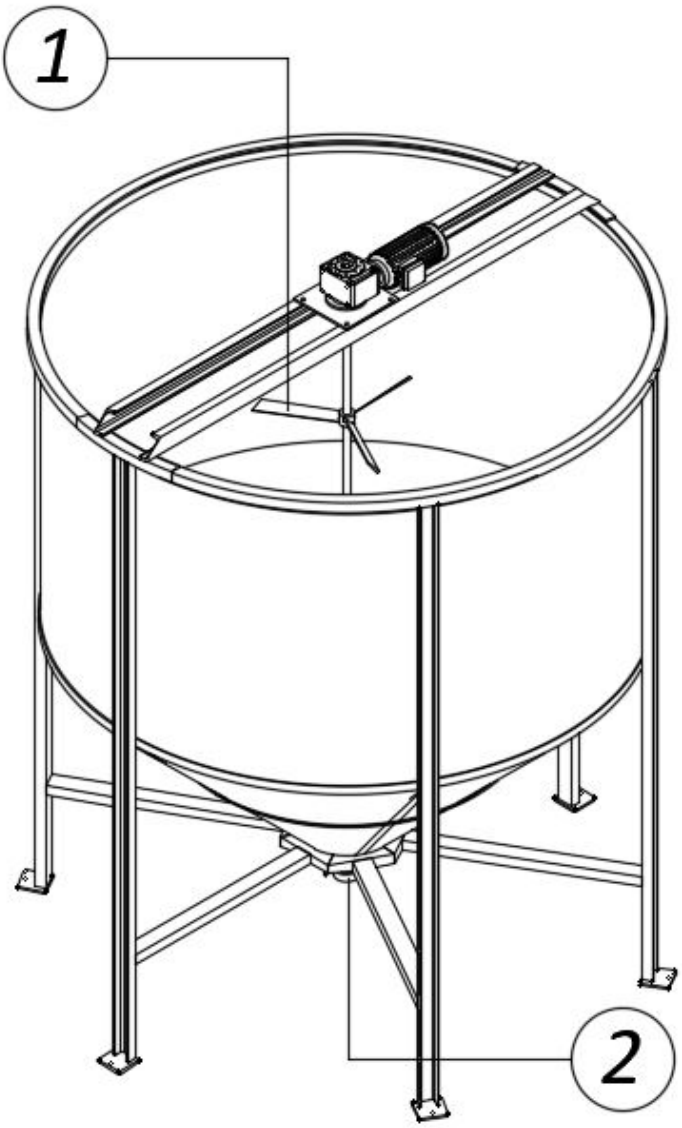


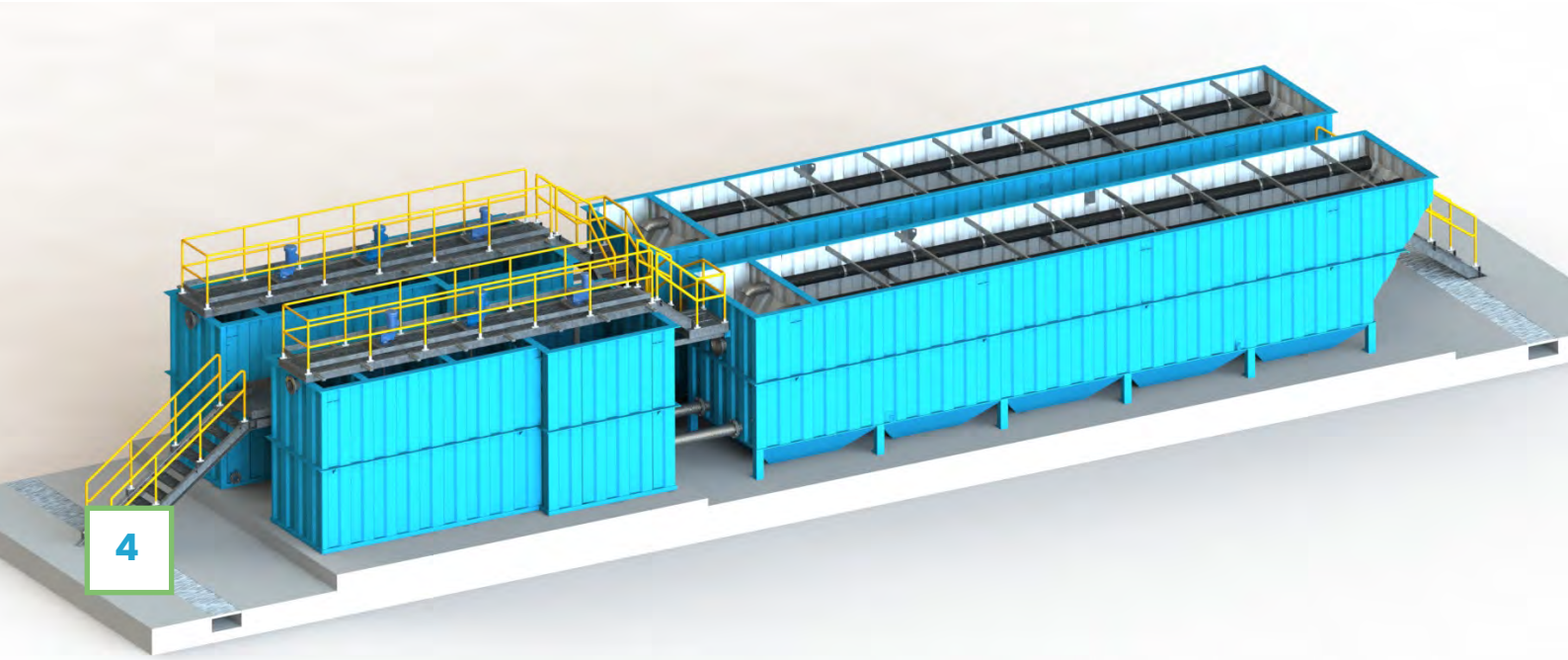
Accessories

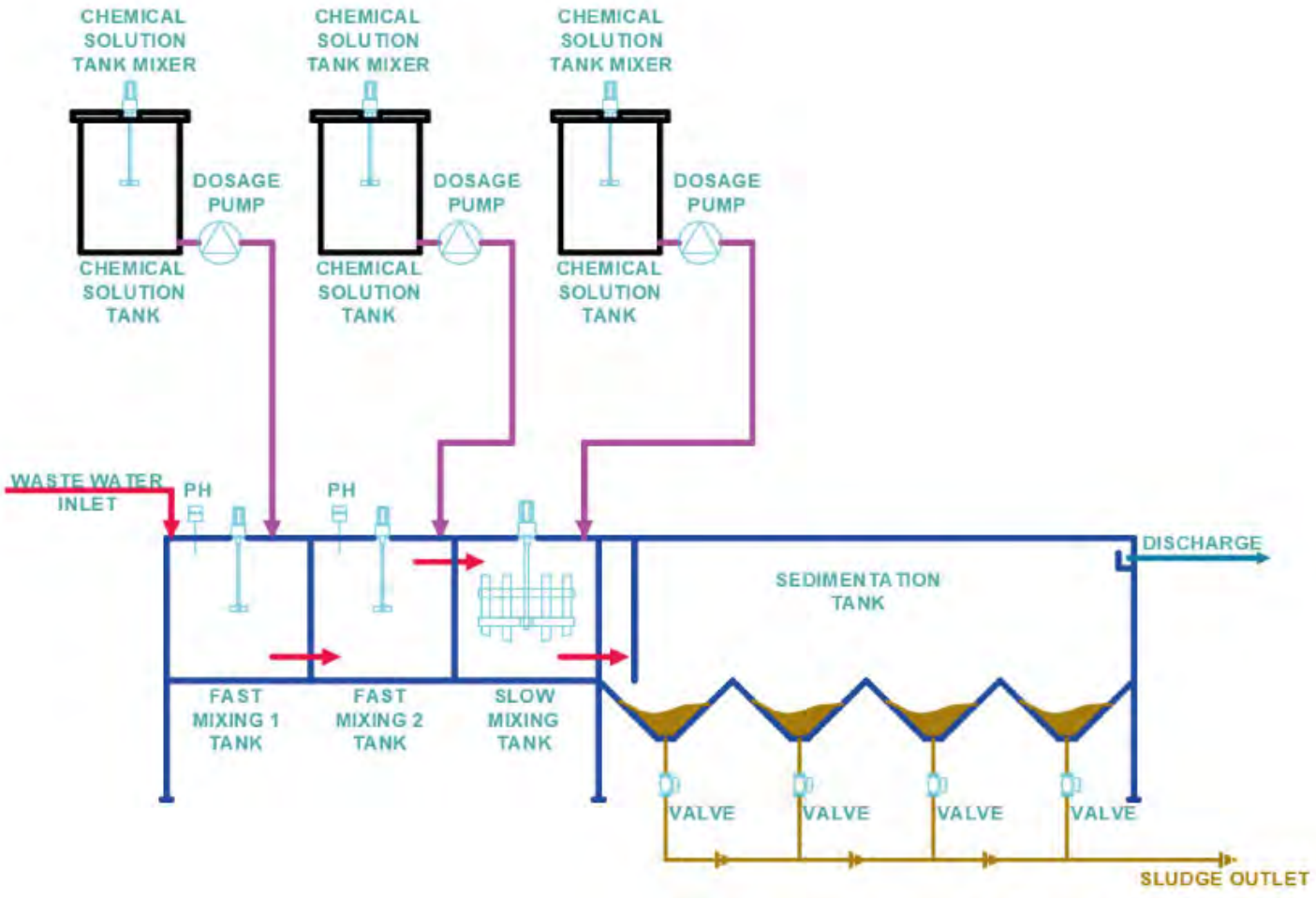
- Sedimentation Feeding Structure
- Discharge Weir
- Mixers
- pH meter Probe Holder*
- Probe Washing System*
- Upper Covers*
- Intervention and Maintenance Platform*
- Solution Tanks*
- Sludge Valves*
- pH Meter*
- Dosing Pumps*
- Sludge Pumps*
- Local Power and Control Panel*

* Optional accessories are defined.

No	Part Name
1	Mixer
2	Sludge Outlet Branch






CHEMICAL SOLUTION TANK MIXER
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DOSAGE PUMP
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CHEMICAL SOLUTION TANK
CHEMICAL SOLUTION TANK
CHEMICAL SOLUTION TANK
WASTE WATER INLET
PH
PH
DISCHARGE
SEDIMENTATION TANK
FAST MIXING 1 TANK
FAST MIXING 2 TANK
SLOW MIXING TANK
VALVE
VALVE
VALVE
VALVE
SLUDGE OUTLET

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