



VORTEX TYPE GRIT CLASSIFIERS



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General Description and Intended Use

Vortex type grit classifiers are used after inlet screen units in the wastewater treatment plants. They are used to segregate the grit in the filtered wastewater. The grits should be segregated from the water because they accumulate in pipes and channels and causes blockages and also wearing in mechanical parts. The blockage and breakdowns in the pump, pipe, valves and other equipment are minimized with the segregation of the grits from the wastewater.

Working Principle Of Equipment

The wastewater is entered tangentially to grit classifiers from the grit segregation area in conical form. The wastewater forms a radial movement in the tank. The grit and the water are segregated with the vortex effect created with this movement. The grit of which is heavier than the water settles at the bottom. The difference from the other grit classifiers is to wash the watery grit fed to the system by increasing the friction between the water and the grit with the help of the mixer in the unit. With this process, the grit in the wastewater is segregated from the system and the content of the organic materials in the grit is reduced and the bad odor problem is eliminated.

Technical Specifications

- It is manufactured in any capacity and size.
- The mixer positioned in the tank boosts the vortex effect. The water-grit segregation and organic material washing performance is increased. The bad odor problem which may be caused by segregated grit is minimized
- It is driven by the mixer motor / reducer. Thanks to rotation movement, a centrifugal force is created and the grit is collected at the bottom of the tank. The organic materials of which specific weight is low are discharged from the system with the water segregated from the grit.
- The circular plate manufactured coupled to the mixer prevents the elevation of the grit and facilitate settling.

Accessories

- Automatic Grit Discharge Valve
- Intervention and Maintenance Platform*
- Waste Container*
- Local Power and Control Panel*
- Emergency Button*

* Optional accessories are defined.

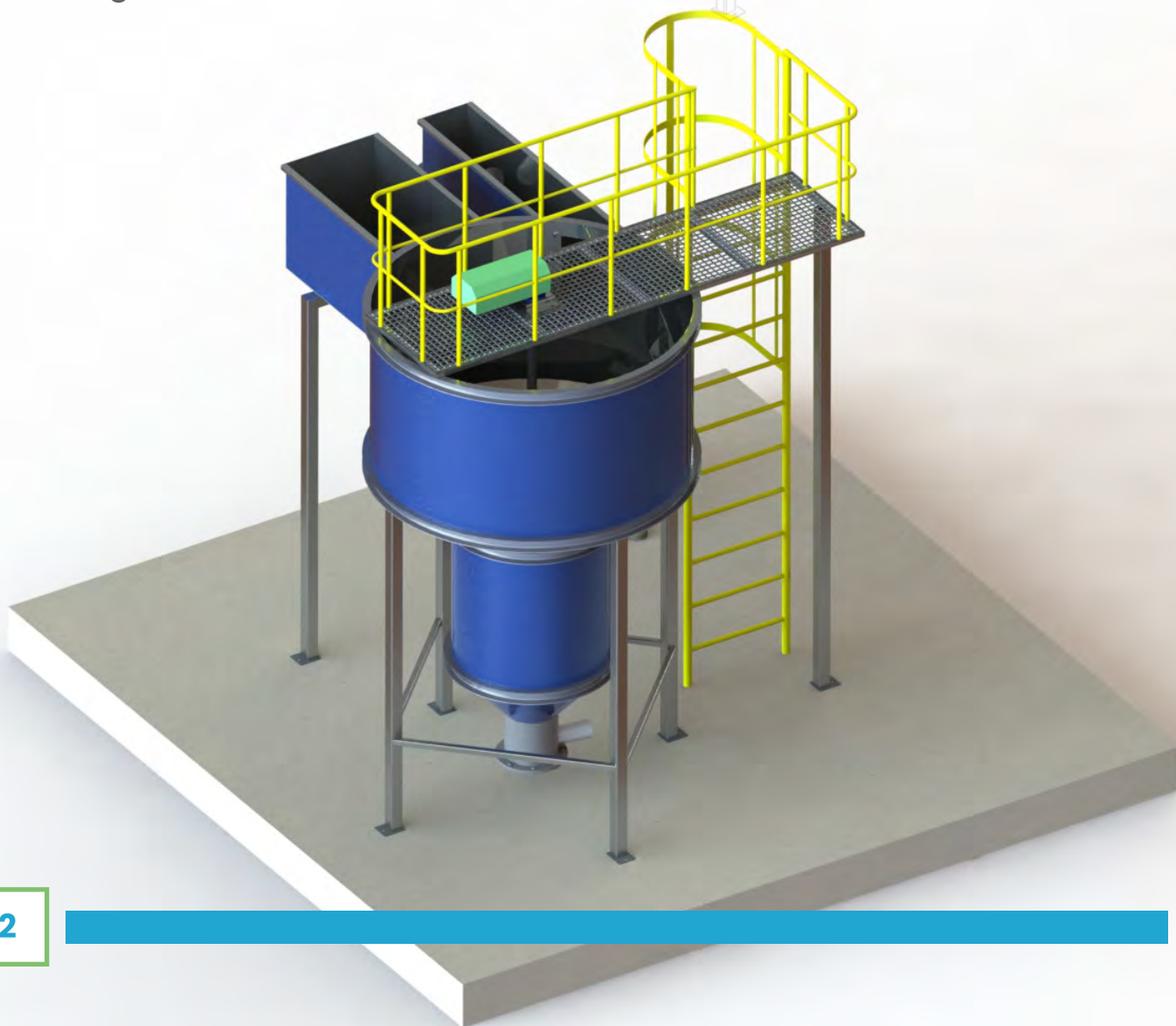
Advantages

- Grit Segregation With High Performance,
- Low Operation and Maintenance Costs,
- Low Energy Consumption,
- Easy Transportation and Mounting,
- Possibility to Control and Follow the System Operation Over SCADA,
- Long Operation Life,
- Assembling Possibility on Force Mains,
- Not Requiring constructional structures,
- Economical and Resistant Design.

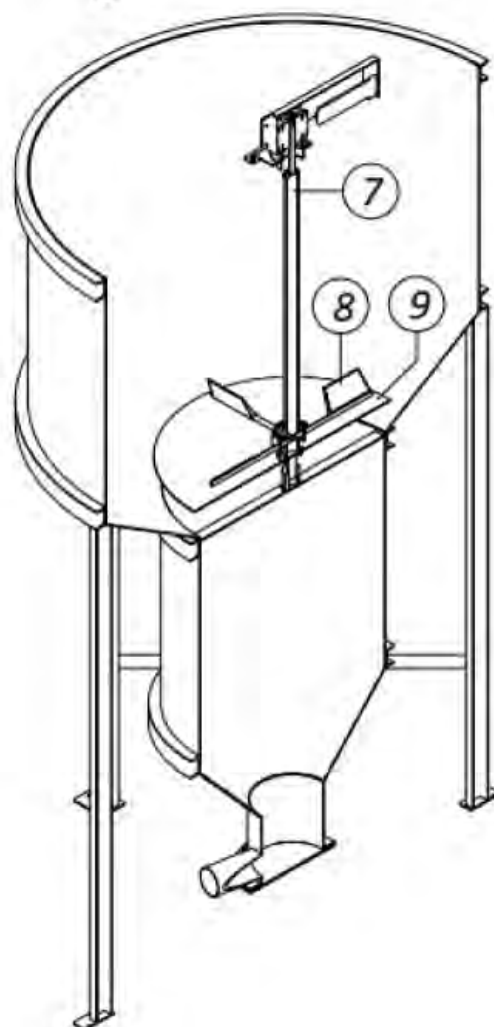
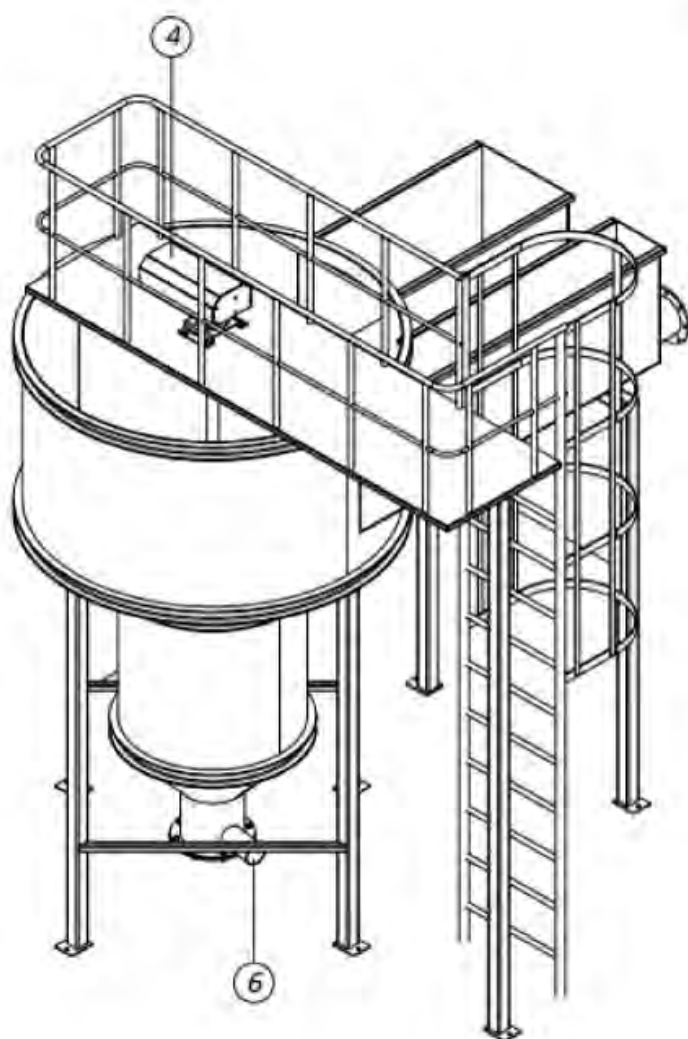
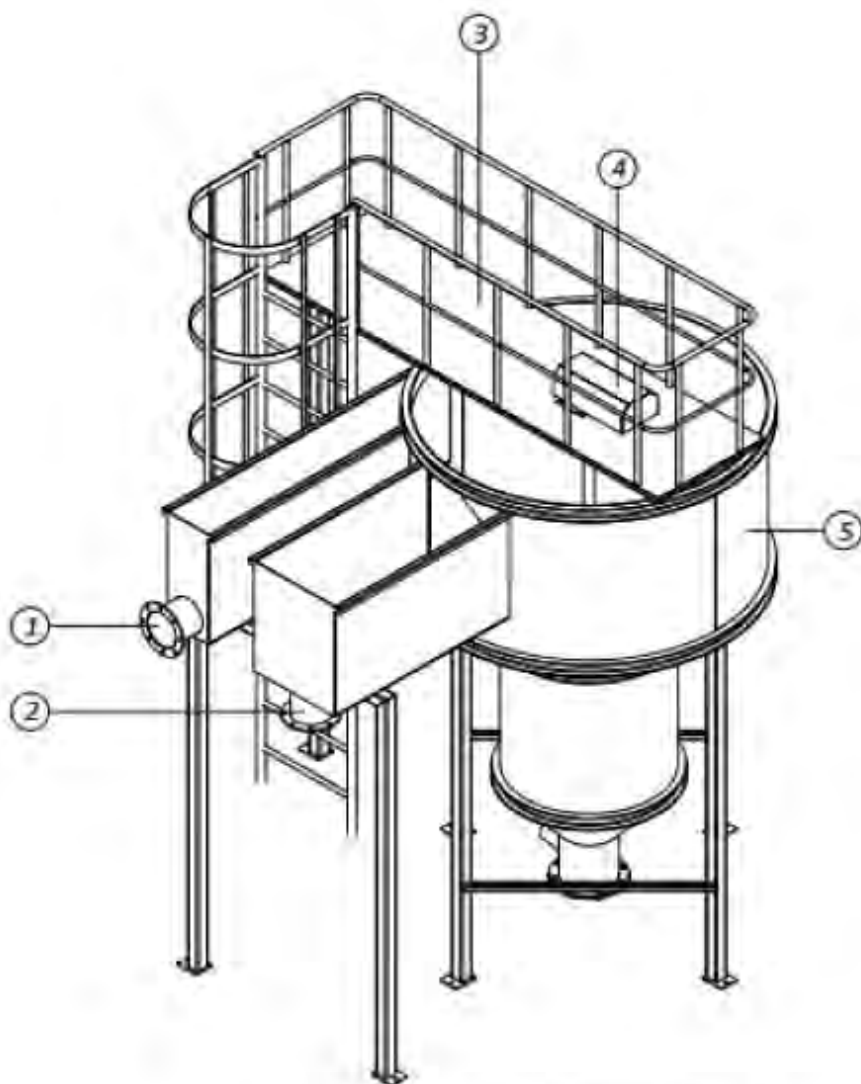
Material Details

- Frame: They can be manufactured as S235JR + Epoxy Paint, S235JR + Hot Dipping Galvanized Coating, DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Mixer: They can be manufactured as S235JR (St52) + Epoxy Paint, S235JR + Hot Dipping Galvanized Coating, 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 Inlet Pipe
2	Wastewater Outlet Pipe
3	Maintenance and Interference Platform
4	Motor / Reducer
5	Grit Segregation Area
6	Grit Discharge Pipe
7	Mixer Shaft
8	Mixer
9	Grit Flapper





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