

Rotary Drum Thickener (Scrudrain)

Cost Effective, Low Maintenance Thickening System



System Advantages

- Thickening from $\frac{1}{2}\%$ – 3% up to 6% – 9%
- Drier sludge cakes than traditional equipment
- Higher sludge throughput
- Simple and rapid maintenance
- Automatic shutdown in the event of malfunction
- 304 stainless steel construction
- Skid mounted package for ease of installation

Sludge thickeners are widely used in many wastewater and water treatment plants to help control the expense of solids handling. Generally, they are placed before filter presses, belt presses and centrifuges to achieve higher sludge concentration before final dewatering. Sludge thickeners are also used to increase solids concentrations before biogas reactors; to reduce the volume of sludge before being pumped into drying beds; or for agricultural

application.

The Rotary Drum Thickener is a pre-thickener which performs solid/liquid phase separation. The main control panel provides controls for the sludge pump and chemical dosing subsystems. Manual adjustments are made directly to the sludge pump or polymer unit. Sensors monitor the operation of the system and send signals to halt operation in the event of a malfunction. The design of the Rotary Drum

Thickener allows for easy and simple control of the dewatering process by adjusting the rotating speed to achieve the optimal dewatering time and to prevent short-circuiting. In keeping with Aero-Mod's high standards, the thickener is manufactured in 304 stainless steel.

Product Bulletin

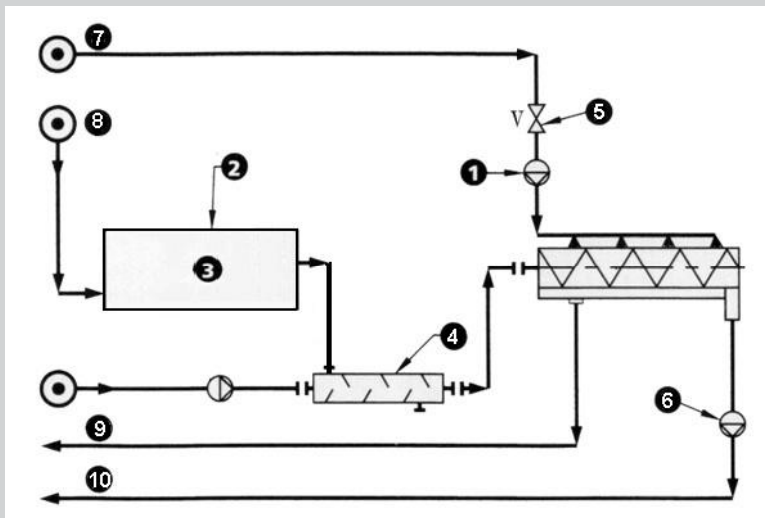


The dewatering results are much higher than with conventional systems. The filter cloth is kept clean by making use of washing water at high pressure from outside. Since it is not under tensile stress, the filter cloth has a long life. To minimize installation time and costs, the Rotary Drum Thickener is supplied as a complete assembled and tested unit.

The thickener utilizes an Archimedeian screw, instead of only the conventional drum filter. As the belt filter is rotated by an adjustable gear motor, optimum dewatering is achieved and short-circuiting is prevented.

Equipment Installation Requirements (complete system)

- A. Electrical Supply – The Rotary Drum Thickener requires 230/460 Volt, 3 phase, 30 amp supply. The sludge pump is 230/460 Volt, 3 phase, 30 amp, and the polymer unit is 120 Volt, 15 amp.
- B. Drain – The drain size for the equipment is dependent upon Model Unit size.
- C. Water Service – A 1½” service water line is recommended with a flow of about 30 gal/min. at a minimum of 35 psi to the inlet of the washing pump. Potable water is not required, but the use of clean water is suggested in this application.



Typical Installation

- 1 – Washing Pump (mounted on Thickener)
- 2 – Polymer Unit
- 3 – LMI Polymer Pump
- 4 – Sludge Pump & Static Mixer
- 5 – Washing Water Valve (supplied)
- 6 – Thickened Sludge Pump (others)
- 7 – Washing Water
- 8 – Clean Water (potable)
- 9 – Filtrate to Head of Treatment Plant
- 10 – Thickened Sludge Discharge