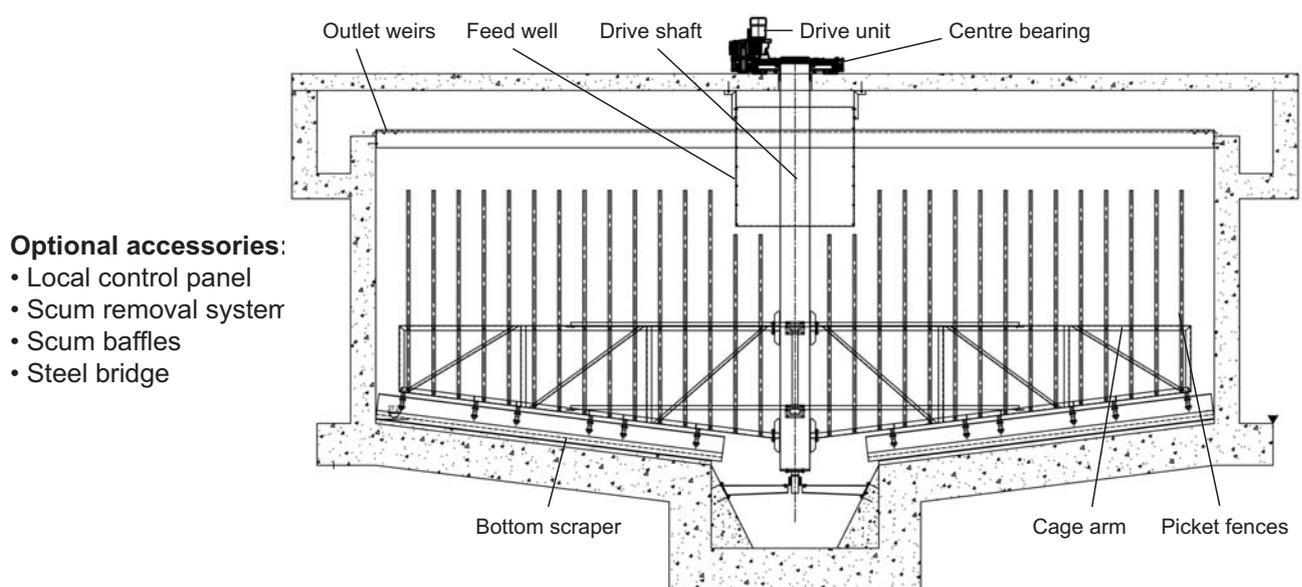


THICKENER

Sludge thickening is the process of increasing solids content of sludges from primary and/or secondary settling tanks. The process serves to reduce the size of the subsequent sludge dewatering steps. Influent sludge is fed to the center of the tank and thickened sludge is pushed to central hopper by scraper blades, concentrated sludge is drawn off either hydrostatically or by a pump and sent to further sludge processing steps.

Generally, picket fences are installed on scraper arms in order to provide gentle mixing of the settled sludge for better consolidation.

For continuously fed sludge thickeners, the supernatant is collected by weirs which are installed at periphery.



Optional accessories:

- Local control panel
- Scum removal system
- Scum baffles
- Steel bridge

Thickener consists of following main parts;

Drive unit assembly

It is installed on the bridge and consists of motor, gearbox, and central bearing. Center bearing is designed and sized to absorb and withstand all vertical and horizontal loads. Drive unit transfers the motion to the vertically mounted drive shaft. The drive unit can optionally be protected by torque limiters against overloading. An antifriction large diameter geared bearing is used as center bearing.

Feed well

The center feed well is made of mild steel or stainless steel and is bolted to the bridge.

Drive shaft

Drive shaft is made of mild steel or stainless steel standard pipe or folded plate and serves to transfer the motion from drive unit to scraper blades and the picket fences.

Bottom scraper system

Bottom scraper system consists of bottom scraper arms, made of standard pipes or folded plates, and scraper blades. Scraper blades quantity varies according to the tank dimensions. Replacable hard rubber is bolted at the edges of the blades.

Picket fences

Picket fences consist of vertical rods connected to scraper arms. Since the vertical rods are clamp connected at top and bottom of arms, the distances between the rods can be easily adjusted.

Outlet weirs

V-notch weirs in accordance with DIN 19558 is available for standard applications but special notch shapes are manufactured depending on client request.

MAN 4510 06.09-E



THICKENER



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