

PCI CLARIFIER

A range of settling tank scraper mechanisms is available for use in a variety of sedimentation tanks and clarifiers used for primary and final settlement of sewage effluent. The scraper mechanisms are purpose designed to suit circular tanks with either flat or sloping floors and can be supplied with scum removal equipment where the need arises

Inflow normally enters the tank through a concrete column which doubles up as the bridge support at the centre. A circular stilling well at the upper end of the column, disperses the flow evenly into the tank. Alternative feed arrangements can be accommodated where an underfloor feed is not possible. In some instances, the stilling well may rotate but it is normally supported from the centre column as a fixed unit.

Sludge deposits on the floor of the tank and is scraped to the sludge hopper at the centre. From this point it is withdrawn under hydrostatic head through an underfloor pipe to a sump at the side of the tank. Desludging can be automated where this is preferred.

Settled effluent flows from the tank over a set of peripheral weir plates bolted to the launder wall.



ROTATING BRIDGE CLARIFIER WITH DOUBLE STILLING WELL

A rotating bridge carrying the scraper mechanism is powered by a drive unit running on the peripheral wall and this is fed from a cable passing under the tank floor to a slip ring collector at the centre. The inboard end of the bridge rests on a robust centre pivot bearing which is accessible from the platform on top of the centre support column.

In tanks with floors sloping to the centre, scrapers depending from the bridge, are normally arranged in echelon formation but volute type scrapers are available where preferred. In flat floor tanks, the scrapers are vee shaped with uptake tubes conveying the sludge to a sight box suspended from the bridge. A syphon lifts the sludge from the sight box to a circular launder at the tank centre and from there, the sludge flows under the floor to the outside of the tank.

Where scum removal is a requirement, a skimmer mounted on the bridge, guides the scum to a removal trough at the periphery. De-scumming is automated by the bridge passing the trough.

Materials of manufacture can be selected to suit each application with bridges varying from steel to stainless steel and underwater gear being steel or stainless steel as required. Some GRP components are utilised where situations are conducive to the use of the material.

PCI AFRICA

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