

Rotating sludge scraper.



Sludge scrapers for circular tanks utilize either central drive or peripheral drive. This depends on the process, tank diameter, design and sludge loads.



VA Teknik Sweden

Towards a cleaner world

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Rotating sludge scraper.

These machines are manufactured to a basic design and are mainly made of stainless steel. Our full-bridge and semi-bridge rotating sludge scrapers are of latticework type. There are a variety of configurations, with or without supplementary functions. The scrapers can be peripheral driven full-bridge scrapers, semi-bridge scrapers or central driven.

Advantages

We have standardized our manufacturing models to enable us to use modern efficient methods to ensure high quality products, which our clients expect. The design life is targeted above 40 years.

A strong, rigid and torsion resistant bridge can handle high sludge loads.

Steel quality below water is normally AISI304 stainless steel. Motored gears, bearings etc. are supplied coated according to the customer requirements. Carbon steel drive shafts are anti-corrosion treated if not made in stainless.

Use

At waste water treatment plants, industrial waste water treatment plants, pulp & paper mills etc. to remove settled sludge from the clarification tank floors.

Function

For peripheral operation,

the bridge rotates. The bridge support bearing is assembled on top of the central column. The bridge is powered by a front wheel driven end-carriage running on top of the tank wall.

Our full-bridge and semi-bridge rotating sludge scrapers are of latticework design with tubular vertical supports that are welded or bolted to horizontal beams supported from the bridge, angled scraper blades are fitted for bottom scraping to remove sludge from the entire floor to the sludge pit in the center of the tank. Optionally the units are equipped with surface sludge blades that transport floating sludge to a sludge cone. The floating sludge scraper blades are assembled below the bridge that rotates.

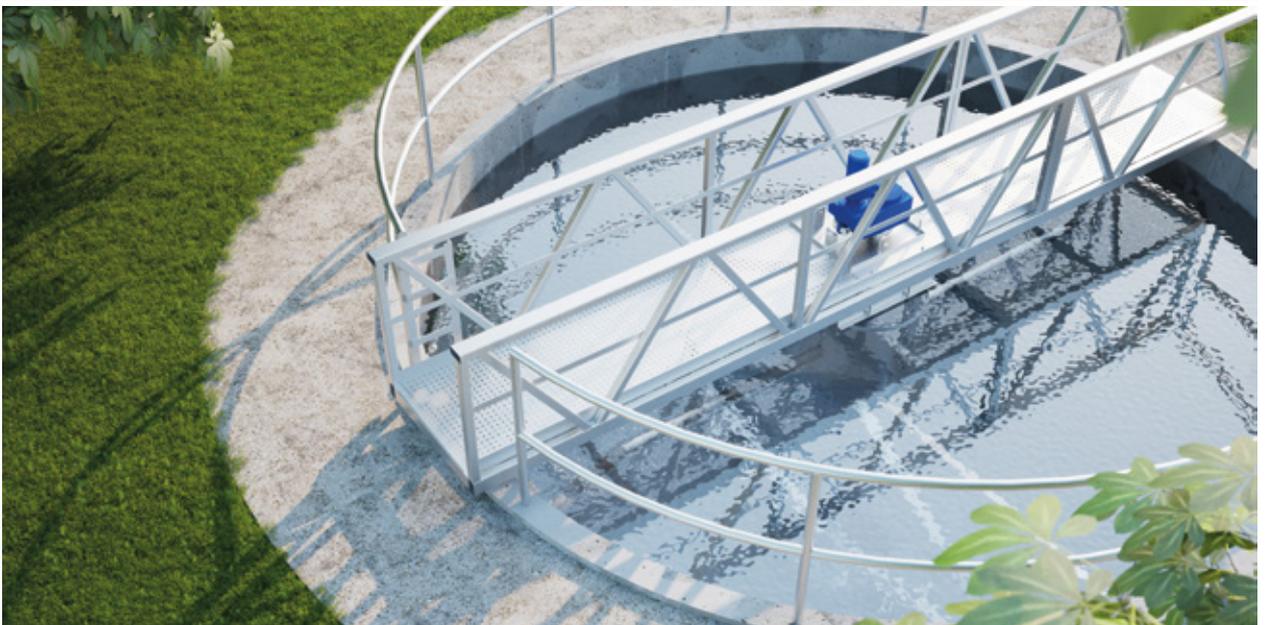
The peripheral driven rotating sludge scrapers can be designed with siphon pumping (also referred to as airlift pumps) as option or with submersible pumps.

For central operation,

the gate rotates and is free hanging from the bridge supported by a plastic bearing in the bottom, this keeps the scraper aligned.

The motored gear is assembled on a hot dip galvanized baseplate with mechanical torque limiter; the drive unit is located on a stationary bridge or concrete slab.

The motored gears shaft is flange connected directly to the center shaft.



The center shaft is made as a tubular design and the shaft's lower part is equipped with a replaceable bottom bearing made of polyethylene, which operates against a steel stub shaft. The bearing is lubricated by the tank water.

From the central tube horizontal scraper arms with angled scraper blades are fitted for bottom scraping to remove sludge from the entire floor to the sludge pit in the center of the tank.

Specifications	
Power output range	0.18-2,5 kW
Motored gear	SEW, Nord or by client demand
Steel parts	Stainless steel configurations: AISI304, AISI316L, EN1.4547 (Super duplex) S235JRG hot dip galvanized or GRP grating on walkway
Wheels	Urethane coated steel rims. Solid rubber wheel with steel rim.
Size configuration	All sizes
Types	VAT RSS – Rotating sludge scraper semi-bridge VAT RSF – Rotating sludge scraper full-bridge VAT RSC – Rotating Sludge scraper Central driven
Overload protection	Electronic Torque Guard Mechanical - Disc Spring package

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