Remove settled sludge and scum from clarifiers

The Zickert™ Reciprocating Sludge Scraper provides bottom and surface scraping for rectangular settling tanks with typically little or no adaptation required.

Adaptable to most tanks and simple to install, it provides continuous or intermittent scum transportation to suit the process with high operational reliability.

The Z2000 is a bottom sludge scraper specially designed for continuous transportation of sludge and the Z3900 is an efficient surface scum scraper with minimum transportation of water.

Applications
- New wastewater treatment plants.
- Retrofit to existing treatment works.
- Water purification plants.
- Industrial process wastewater treatment plants.

Performance

<table>
<thead>
<tr>
<th>TSS Removal %</th>
<th>BOD Removal %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zickert Sludge Scraper</td>
<td>Alternative scraper system on same site</td>
</tr>
<tr>
<td>66%</td>
<td>53%</td>
</tr>
</tbody>
</table>

Benefits
- Low profile enabling sedimentation tanks to be covered for odour control.
- High operational reliability.
- Simple to install.
- No adaptation needed for most tanks and bottoms.
- Continuous or intermittent sludge transportation.
- No interruption of sedimentation process.
- Adjustable scraper speeds.
- Integral sludge thickening.
- Minimal headroom required.

Product Information
- Maximum length per scraper: 80 m.
- Maximum width per scraper: 13 m.
- Maximum plan area: 700 m².
- Multiple scrapers can be used in a single large tank.
- Clearance - the Z3900 scum scraper requires a minimum of 650 mm clearance above top water level (TWL).
- Stainless steel ASTM 304 or acid-resistant ASTM 316.
How it works

Surface scraping
The drive bar reciprocates back and forth moving the carriage with the scum blade underneath on the forward motion and leaving it on the back. When the carriage reaches the end of the tank a mechanism lifts the blade out of the water, and switches over the drive mechanism to return the blade carriage to the beginning of the tank, and lower the blade back into the water to await the next run.

Bottom scraping
The concave faces of the profiles move the blanket of sludge along the base of the tank. During their return movement the profiles slide their way under the blanket so as not to interrupt the sedimentation process, moving approximately twice as fast as during their forward movement. Where the sludge has a low total solids content no blanket is formed on the bottom of the tank, so the scraper creates a constant flow of sludge towards the sludge hopper, thickening it as it does so. The stroke length of 750 mm is longer than the gap between each profile which is 650 mm.

Learn more
To learn more about how Zickert™ Reciprocating Sludge Scraper can help you to improve sludge handling, visit hydro-int.com, search Zickert Reciprocating Sludge Scraper online or contact us:

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