

SUSTAINED EQUIPMENT SOLUTIONS

RAPID SLUDGE REMOVAL CLARIFIER

HYDRAULIC SUCTION CLARIFIER



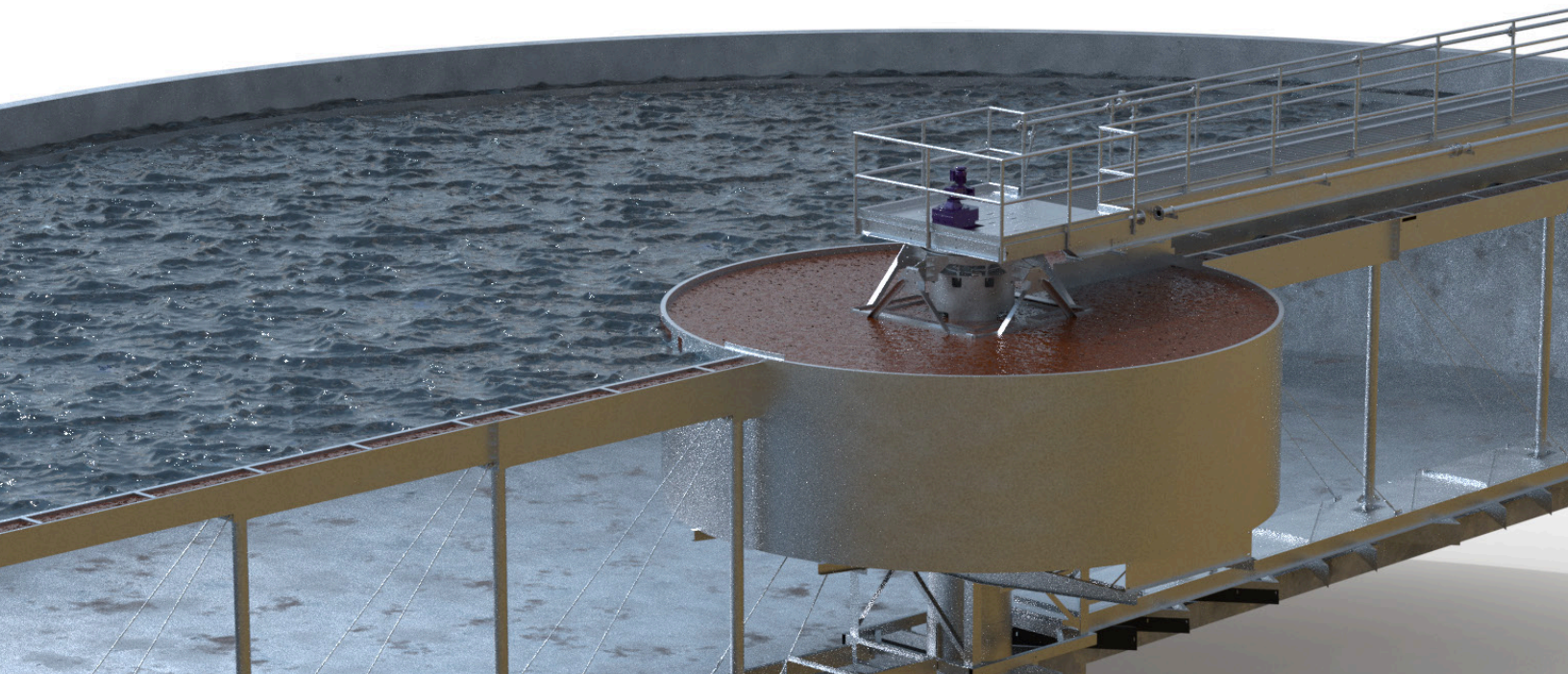
Bringing water to life®

NON CLOGGING STRAIGHT TUBE HYDRAULIC SUCTION FOR ACTIVATED SLUDGE CLARIFIERS

Ovivo's original Enviroquip style Rapid Sludge Removal Clarifiers are high-rate suction clarifiers featuring non-clogging straight tubes for problem free sludge removal and among the highest performance for scum removal. The combination of our drive mechanism, scum handling and easy maintenance features makes it one of the most operator friendly clarifier solutions on the market.

OPTIMIZED EQUIPMENT

- Higher return sludge rates, capable of up to 200% of design flow
- Rapid return of activated sludge to aeration basin for process rejuvenation
- Better control of sludge blanket levels in the clarifier
- Can remove 95% or more of scum within influent well for best scum removal performance
- Flexibility to adjust to changing process conditions (temporary or permanent)



NON-CLOGGING CLARIFIERS

**ENGINEERS AND OWNERS CERTIFY THAT THESE CLARIFIER
MECHANISMS ARE TRULY NON-CLOGGING.**

WE HAVE ELIMINATED CLOGGING BY:

- Drawing sludge from the floor through straight tubes into an open SludgeViewR® trough at the clarifier surface
- Omitting the need for bent tubes, elbows, valves, or small underwater orifices which can clog with hair, strings, rags, and debris
- Utilizing equal length draw tubes, eliminating the requirement for flow control devices and providing balanced sludge removal



OPEN SLUDGEVIEWR® TROUGHS ALLOW VIEWING OF SLUDGE

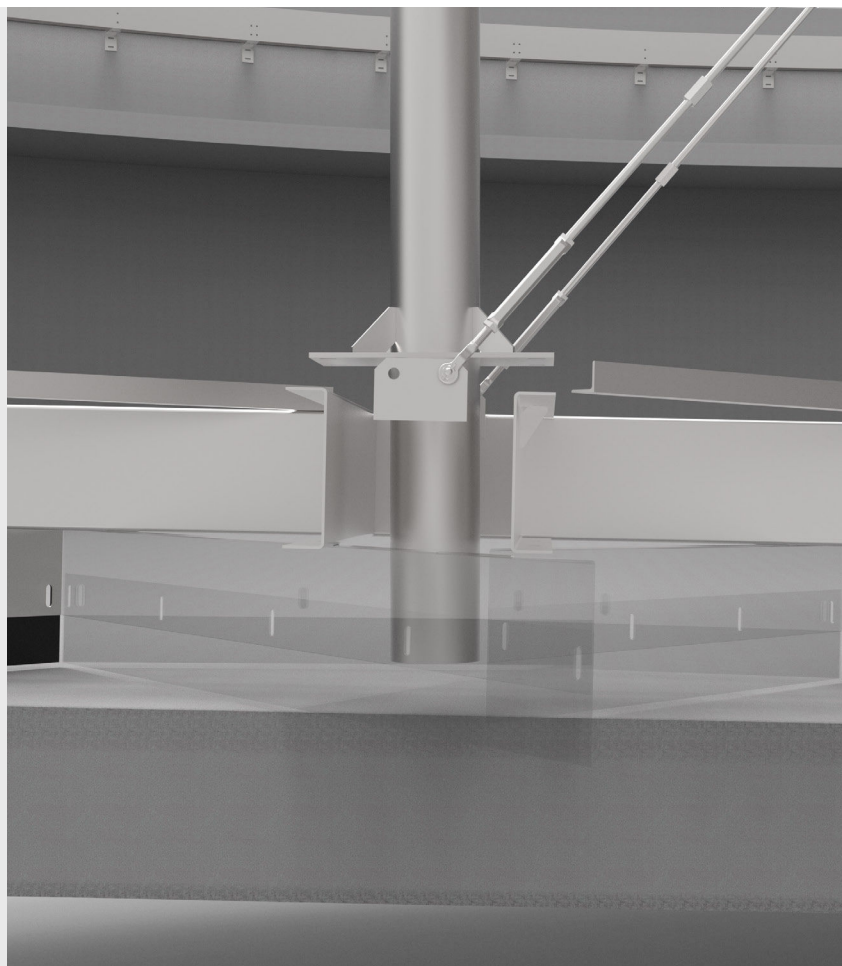
FEATURES & BENEFITS

- Provides operator a view of the sludge returning from each tube, allowing better feedback to adjust pumping rates
- Can be modified to change the head characteristics and suction rate for each tube if the operator needs to vary sludge flow from the system flow
- Non-clogging hydraulic suction
- Constructed in galvanized mild steel, 304, or 316 type stainless steels
- Can use flat floor for lower construction cost
- Provided with ultra-low maintenance features
- 95% of scum removed in the influent well
- Adjusts to changing process conditions

TECHNICAL DATA

Clarifiers are available in HDG, 304SS, 316SS for corrosion free equipment.

- Clarifier diameters: 35 ft to 180 ft (11 m to 54 m)
- Multiple scum capture arrangements
- Rotating ScumTrappR and stationary peripheral scum troughs available
- Inboard fabricated effluent troughs along with weirs and scum baffles can be provided
- Compatible with Ovivo's Submerged Effluent Launder (SEL) System



CENTER PIER DESIGN PROVIDES VERSATILITY

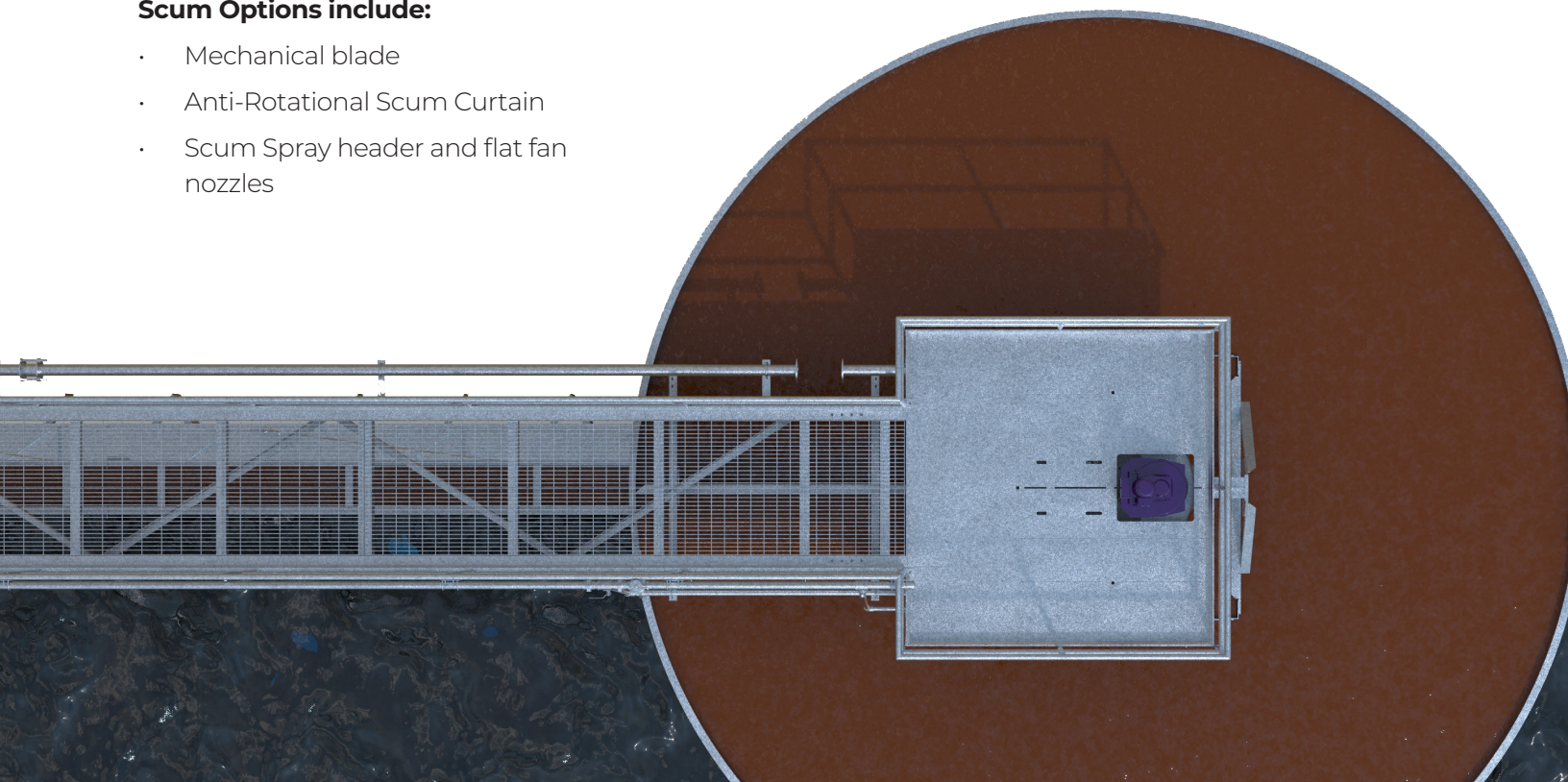
AUTOMATIC OPERATION MADE SIMPLE.

Ovivo's ScumTrappR™ design includes a stationary bridge mounted scum wiper. This is located inside the influent well and pushes gross inorganic floatables and scum into a separate rotating collection box for removal from the system. Thus, 95% of the floatables are captured inside the influent well. This also eliminates the need for scum to travel across the full surface of the clarifier. However, this system can help remove nocardia. What is nocardia in wastewater? Nocardioforms are filamentous, Gram positive actinomycete bacteria that can cause persistent and excessive foaming in activated sludge plants during the summertime. These actinomycetes generally have difficulty out-competing other wastewater microorganisms, but once established they're a handful to remove.

This activated sludge clarifier includes efficient scum removal within the influent well and discharges the scum and other floatables as a dedicated waste stream, separate from the Return Activated Sludge (RAS). The separated scum may also be treated with chlorine or anti-foaming agents to suppress and help eliminate these unwelcome guests. The remaining 5% of scum that passes through the influent well and to the surface of the clarifier may be either mixed with RAS and sent back up to aeration for further treatment or can be separated using a conventional skimmer arm with stationary scum beach and trough.

Scum Options include:

- Mechanical blade
- Anti-Rotational Scum Curtain
- Scum Spray header and flat fan nozzles



EFFECTIVE SCUM REMOVAL

95% OF SCUM IS CAPTURED AND REMOVED INSIDE THE INFLUENT WELL

Our Rapid Sludge Removal Clarifier can be equipped with a special center pier to accommodate a variety of functions. Scum and return sludge may use combined or separate collection boxes which provide the owner with the option of removing scum and floatables at the source and returning them to the upstream process or removing them from the system altogether. A rotating scum beach incorporated into the influent well accomplishes this with scum either discharged down the pier or pumped out along the bridge by use of a small submersible pump.

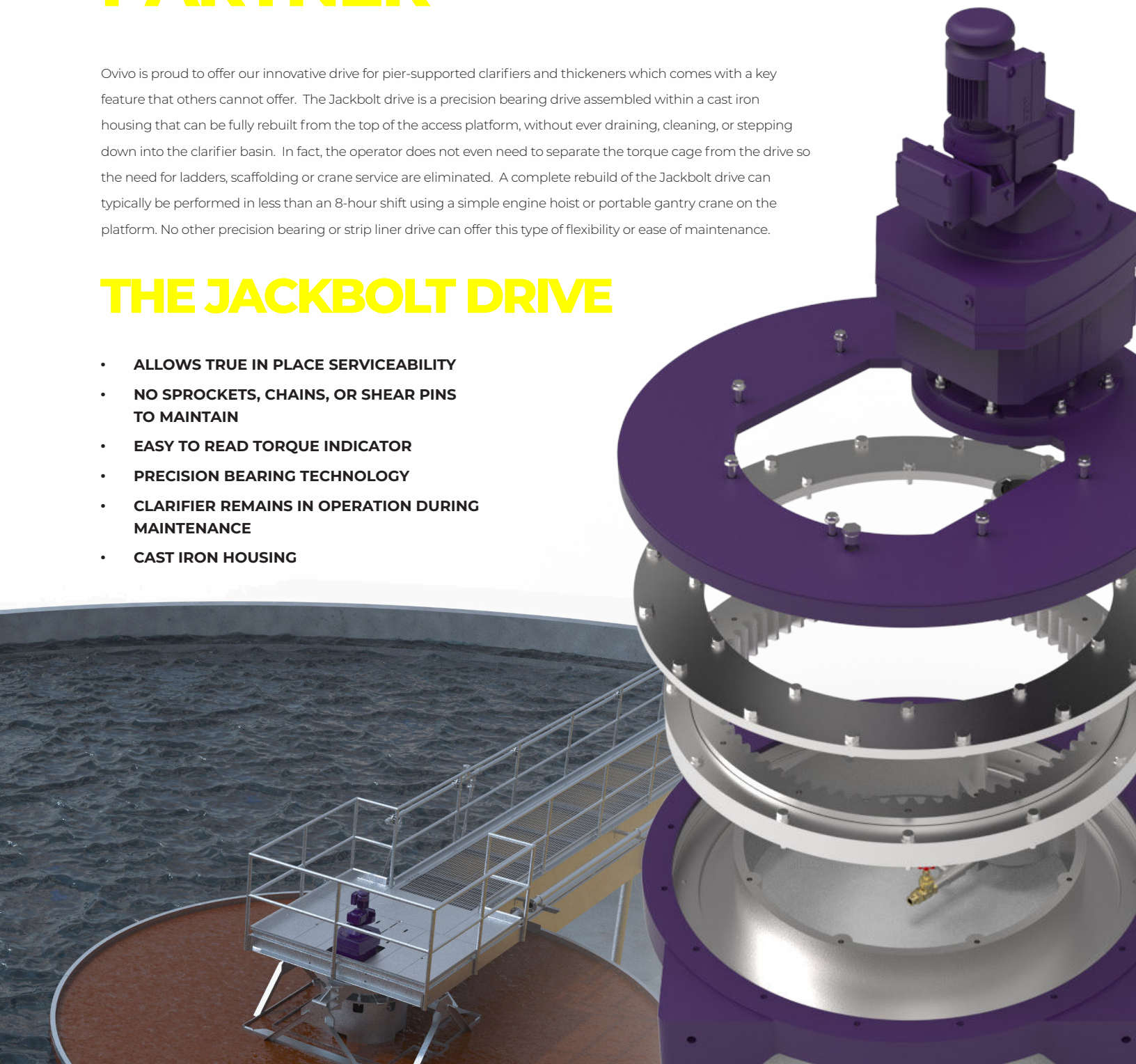


MEET JACK, YOUR NEW MAINTENANCE PARTNER

Ovivo is proud to offer our innovative drive for pier-supported clarifiers and thickeners which comes with a key feature that others cannot offer. The Jackbolt drive is a precision bearing drive assembled within a cast iron housing that can be fully rebuilt from the top of the access platform, without ever draining, cleaning, or stepping down into the clarifier basin. In fact, the operator does not even need to separate the torque cage from the drive so the need for ladders, scaffolding or crane service are eliminated. A complete rebuild of the Jackbolt drive can typically be performed in less than an 8-hour shift using a simple engine hoist or portable gantry crane on the platform. No other precision bearing or strip liner drive can offer this type of flexibility or ease of maintenance.

THE JACKBOLT DRIVE

- **ALLOWS TRUE IN PLACE SERVICEABILITY**
- **NO SPROCKETS, CHAINS, OR SHEAR PINS TO MAINTAIN**
- **EASY TO READ TORQUE INDICATOR**
- **PRECISION BEARING TECHNOLOGY**
- **CLARIFIER REMAINS IN OPERATION DURING MAINTENANCE**
- **CAST IRON HOUSING**





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