

COP™ Spiral Blade Clarifier

Rapid Solids Removal



WESTECH®

Clarifier Optimization Package



The WesTech Clarifier Optimization Package (COP™) is the result of research and design focused on building a better clarifier. Each COP™ is designed for the specific process requirements of each plant. Proprietary algorithms are utilized to result in a clarifier that provides high performance.

Why Choose a COP™ Clarifier?

For nearly 30 years, with more than 1,500 installations, WesTech has been improving the performance of both primary and secondary clarifiers with our Clarifier Optimization Package (COP™). WesTech COP™ clarifiers:

- optimize the clarification process
- produce the cleanest possible effluent
- maximize underflow concentration

The influent center column of the COP™ clarifier is sized and ported to both prevent settling and to systematically reduce incoming velocities. WesTech's unique Dual-Gate™ EDI nearly eliminates hydraulic energy as the flow enters the feedwell. Flow enters at the water surface, ensuring that the full volume of the flocculation well is used for gentle mixing and flocculation of the biological solids. Opposing adjustable gates are arranged so that incoming flow impinges on itself, effectively dissipating incoming energy and eliminating focused flow streams that could carry into the clarification zone. The result is a well-flocculated mixed liquor that spreads gently and evenly into the clarifier without disturbing settled solids on the basin floor.

Side-by-side studies show a 27% reduction in effluent suspended solids when using the new Dual-Gate™ EDI versus a conventional EDI in shallow secondary clarifiers.

WesTech's Dual-Gate™ EDI is just one of many benefits provided by the Clarifier Optimization Package. Contact WesTech to find out more about why the COP™ may be a perfect fit for your plant.



Density Current Baffle

Eliminates wall currents and prevents short-circuiting. The wall-mounted baffle is low in cost and requires no maintenance.

Scum Removal

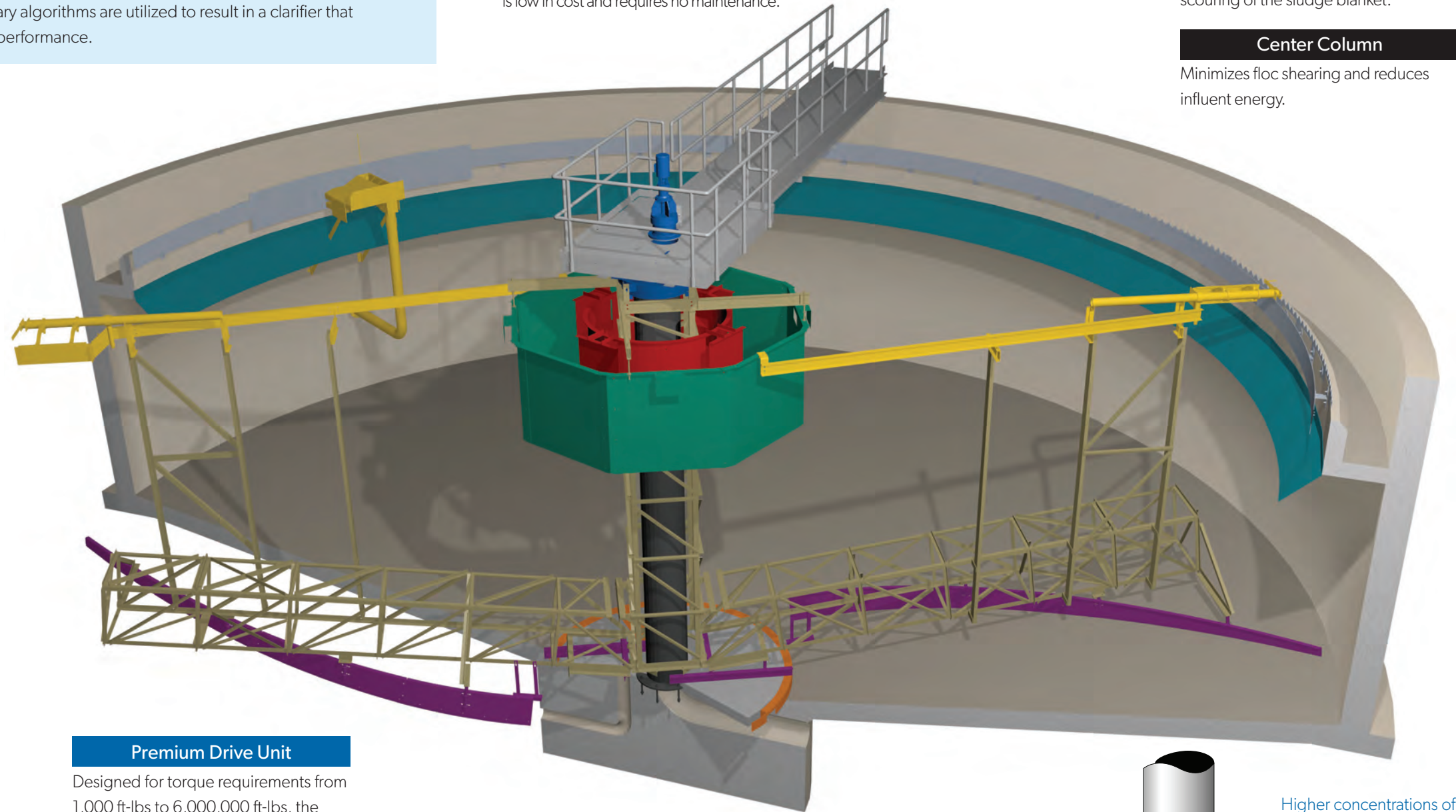
Removes scum build-up from within the feedwell and from the clarifier surface.

Flocculating Feedwell

Promotes hydraulic flocculation in the inlet area and is designed to eliminate scouring of the sludge blanket.

Center Column

Minimizes floc shearing and reduces influent energy.



Premium Drive Unit

Designed for torque requirements from 1,000 ft-lbs to 6,000,000 ft-lbs, the Premium Drive Unit provides rotational force to the clarifier mechanism while resisting torque loads and overturning moments.

Spiral Rake Blades

Increase sludge transport capacity, providing rapid solids removal, and lower sludge blankets. Eliminate septicity and denitrification.

Sludge Withdrawal Ring

Reduces the depth of the sludge blanket in a secondary clarifier – decreasing sludge scour and increasing hydraulic capacity, as well as reducing the possibility of denitrification and phosphorus removal in BNR processes. The Sludge Withdrawal Ring provides rapid solids removal in conjunction with Spiral Rake Blades.

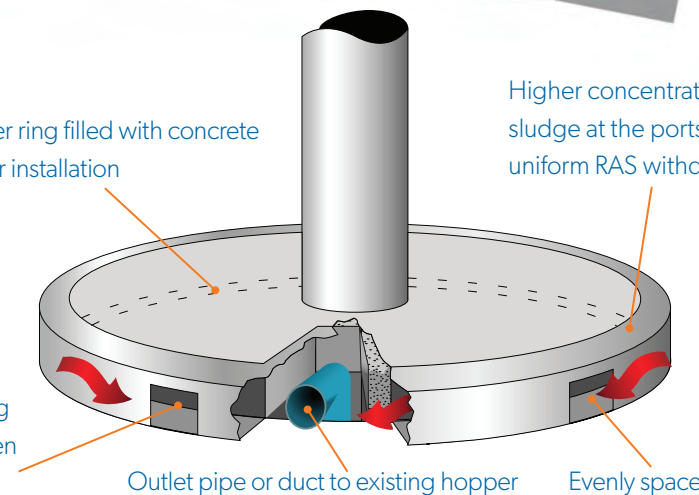
Inner ring filled with concrete after installation

Higher concentrations of sludge at the ports for uniform RAS withdrawal

Large inlet ports prevent plugging and maintain even flow patterns

Outlet pipe or duct to existing hopper

Evenly spaced ports





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