Leopold® Clari-Vac® Floating Sludge Collector

Simply Powerful Sludge Removal for Water and Wastewater Treatment Plants



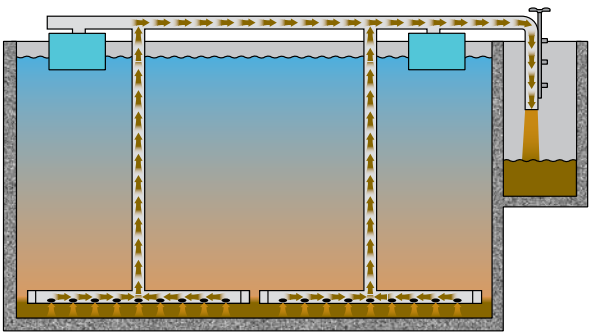
Reliable, Proven Performance

For more than three decades the Leopold Clari-Vac floating sludge collector has proven the optimum choice as a sludge collector for a wide variety of water and wastewater treatment facilities. The Clari-Vac floating sludge collector removes material faster, produces a higher solids content, lowers sludge disposal costs, drastically reduces power costs, and virtually eliminates maintenance. Its exceptional performance is another example of how the Leopold concept of engineered simplicity continues to deliver powerful and reliable solutions for the water and wastewater treatment industries.

Engineered Simplicity

The Leopold Clari-Vac floating sludge collector owes its outstanding and reliable performance to its engineered simplicity. Operating on the basic principles of buoyancy and siphon, collection headers on the Clari-Vac submerged sludge collector "vacuum" the solids that have naturally settled and compacted on the tank floor.

Sludge is then siphoned into a separate trough where it is pumped to waste in water plants or returned to secondaries in wastewater activated sludge applications. There are no moving parts under water and all parts except the drive are nonferrous metals to minimize corrosion potential.





Drive Assembly

The Clari-Vac floating sludge collector employs a constant-torque, variable-speed DC electric motor and sheave arrangement for its high-efficiency drive assembly, minimizing power requirements for even the largest tanks.

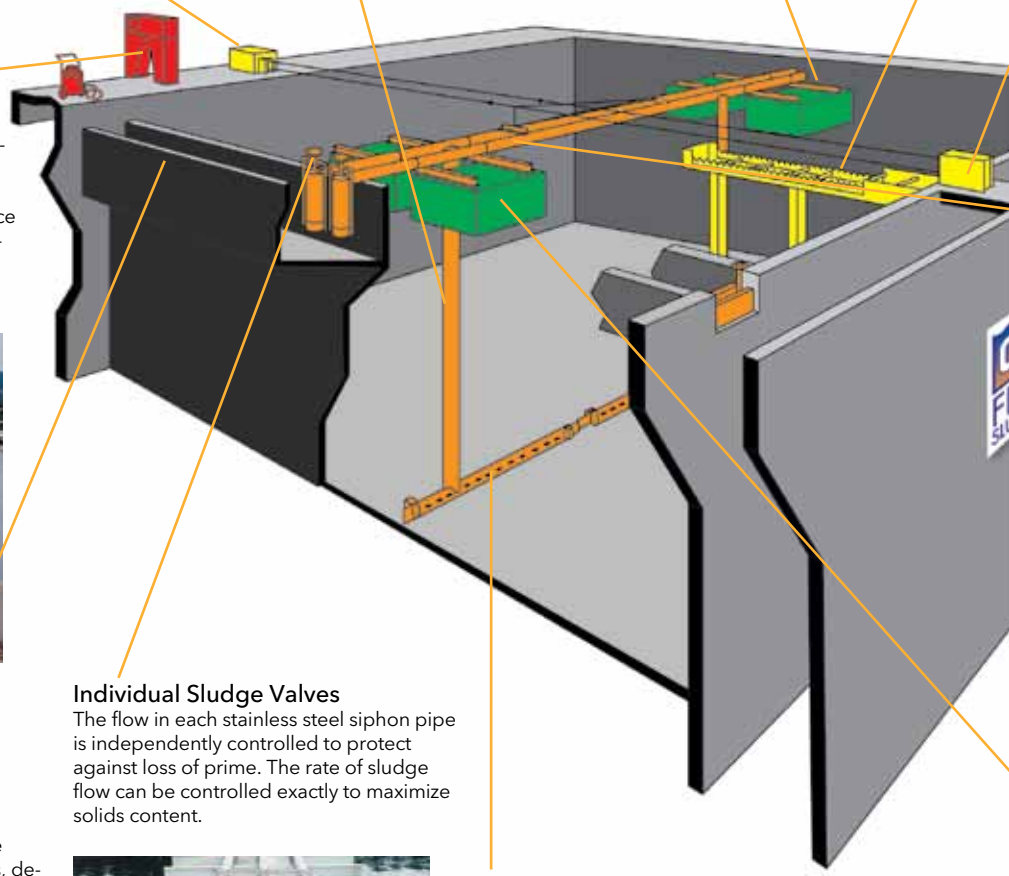
Siphon Pipes

The high-performance, corrosion-resistant siphon pipes are manufactured from stainless steel, further reducing the possibility of oxygen cell corrosion. Vacuum-tight joints are also standard. The siphon pipes form the basis of the structure to the bridge, thus reducing weight, resulting in lower power costs.



Guide Wheels

Inboard and outboard guide wheels on each clarifier bridge ensure maximum unit alignment and stability. Guide wheels on one side are also spring-loaded for better performance and allow for imperfections in concrete tank walls.



Control Panel

The programmable control panel can accommodate individual facility requirements. The control panel features a stainless steel enclosure (rated NEMA 4X), solid-state circuitry, an integral space heater, and thermostat. Optional equipment is available for severe environments.



Individual Sludge Valves

The flow in each stainless steel siphon pipe is independently controlled to protect against loss of prime. The rate of sludge flow can be controlled exactly to maximize solids content.

Sludge Return

Dense sludge is deposited in the sludge return channel through individual valves, decreasing return rates in activated sludge and minimizing residuals in potable water. The channel flow runs continuously in wastewater systems and semi-continuously in potable water. This channel can be retrofitted for plant upgrades/rehabilitation.



Collection Headers

(With Patented Degassing System)

Stainless steel collection headers siphon sludge from the floor of the tank with no stirring action, while the degassing system prevents the loss of flow rate capacity in wastewater systems.

Effluent Trough
Effluent and scum troughs are constructed of LeoLite™ fiberglass-reinforced plastic to resist dents, rust, and warpage and to eliminate painting forever.

Idler Assembly
The Clari-Vac floating sludge collector idler assembly features an integral jacking mechanism for ease of cable adjustment.





Floating Bridge
Our innovative floating bridge permits the collector headers to float at a minimum clearance of one inch from the floor of the tank. This allows the almost total clearance of sludge from the tanks, if required. Friction to motion is virtually eliminated by the floats, reducing system power costs.



Fiberglass Floats
Floats are polyurethane foam encapsulated in fiberglass. Leopold manufactures and customizes the floats for each installation to achieve optimal performance by weighting them for prevailing hydraulic conditions.

Consider the Many Clari-Vac Floating Sludge Collector Advantages

Lower disposal costs	From the heavier solids concentration
Greater productivity	Removal is fast–up to 12 fpm
Reduced maintenance	No moving parts under water and all parts except drives are nonferrous metals
Energy efficient	Up to 80% less power required than other systems



Quick, Simple Valve Priming
Priming the siphon valves and setting optimal flow control is quick and simple, taking less than two minutes with a standard wet-dry shop-vac.



Simple, Mechanical Skimming Mechanism
Simple, reciprocating blade-and-weir system effectively transfers floating scum to a removal trough.



Trouble-Free Maintenance
The simple but rigid construction of the Clari-Vac floating sludge collector allows for trouble-free maintenance during tank drain-down.

Xylem [ˈzīləm]

1) The tissue in plants that brings water upward from the roots
2) A leading global water technology company

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

For more information on how Xylem can help you, go to xyleminc.com.

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