



# ITT

Advanced Water Treatment

## Leopold® Clari-Vac® Floating Sludge Collector

Simply Powerful Sludge Removal for Water and Wastewater Treatment Plants



### Reliable, Proven Performance

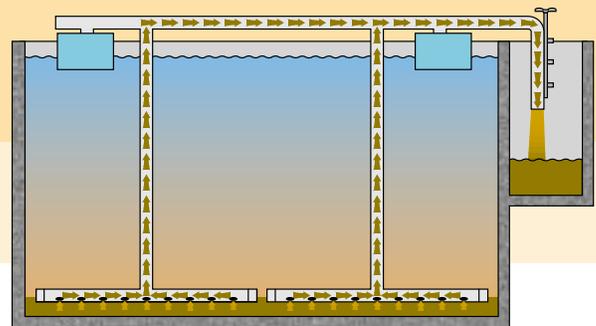
For more than three decades the Leopold Clari-Vac floating sludge collector has proven the optimum choice as a sludge collector for a wide variety of water and wastewater treatment facilities. The Clari-Vac floating sludge collector removes material faster, produces a higher solids content, lowers sludge 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.

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*Engineered for life*



### 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.



### 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.

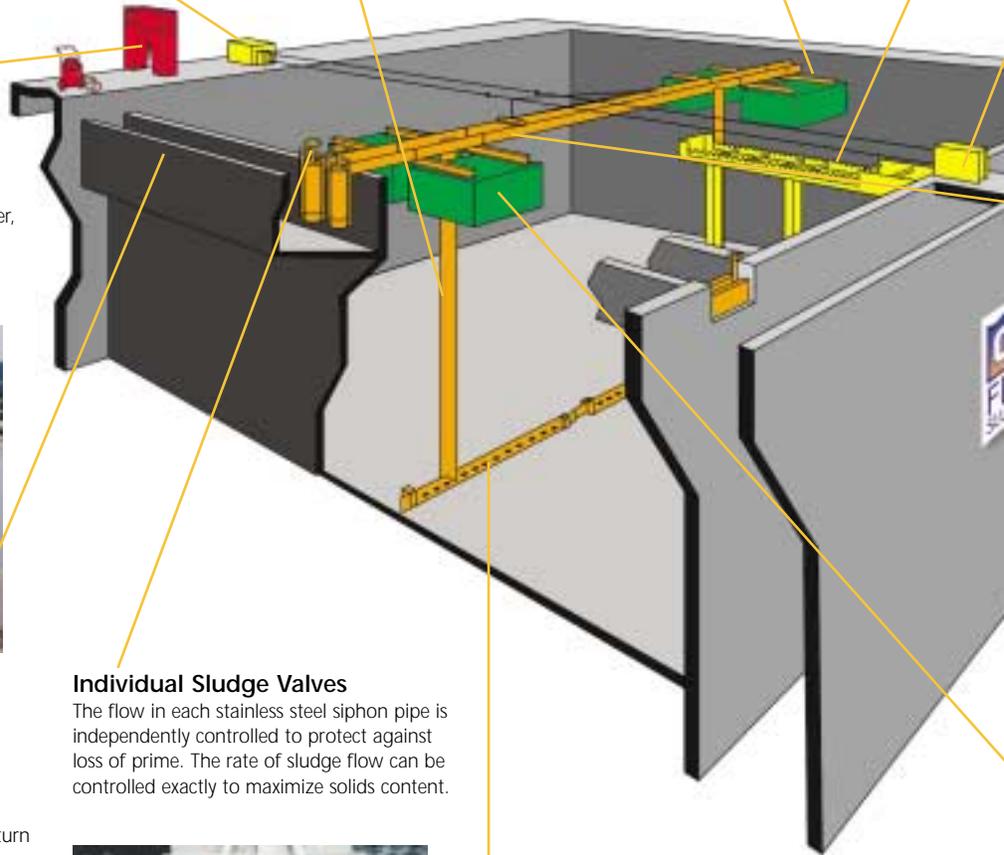
### Individual Sludge Valves

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.



### 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

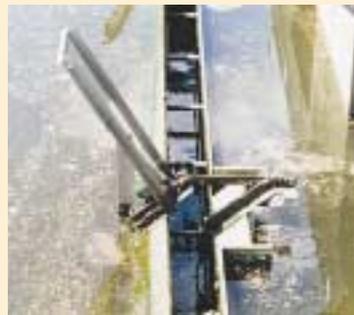
**Reduced maintenance** No moving parts under water and all parts except drives are nonferrous metals

**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.



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