

## EWT™ Trac-Vac® Sludge Collector

Versatile sludge removal system for new and existing clarifiers

### Key features & benefits

- Low profile ideal for improving plate settler performance
- Variable, programmable controls
- Modular components
- Robust drive mechanism – withstands even indefinite stall
- External cable drive systems available
- Air sparger for air scour available
- Unique Trac-Vac Extractor

### How we create value

- Low cost rapid installation in a fraction of the time required by alternate systems
- Flexible retrofit solutions reduce capital costs
- Suitable for any rate and variable deposition patterns
- Reduced maintenance requirements and costs



# EWT™ Trac-Vac® Sludge Collector

Versatility, reliability and economy make Ovivo's Trac-Vac® technology the logical choice for cost-effective solids removal. Hundreds of units installed in new and existing clarifiers have earned a reputation amongst engineers, operators and administrators for flexibility of design, ease of installation and dependable operation.

Pneumatically driven Trac-Vac collectors remove solids from sedimentation basins by means of suction, generated through differential head, or pumping. Key components are corrosion resistant and of modular design, ensuring long service life.

## Features and Benefits

### Tractor

Propulsion is supplied by a highly reliable, all-pneumatic drive assembly, requiring a minimum 90 PSIG air supply. Less than 2 CFM is consumed at normal operating speeds of 6" to 2' per minute. All drive assembly materials are corrosion-resistant and the tractor is housed in stainless steel. If the tractor's path is blocked, the drive mechanism can withstand an indefinite stall without damage. A locator jet establishes the unit's position without the use of trailing floats.

### External Cable Drive Systems

If an exterior drive system is required, an excellent cable drive system is also available. A pneumatic or electric drive is mounted on the basin end wall, above the waterline. Stainless steel cables are used to move collector units across the basin floor. Tape drive systems require a minimum 90 PSIG clean, dry, oil-free air supply. Either a sludge pump (for pumped sludge withdrawal) or a pneumatic or electric sludge valve (for gravity sludge removal) may be used. Gravity sludge removal required a minimum 5 foot head.

### Suction Header Pipe

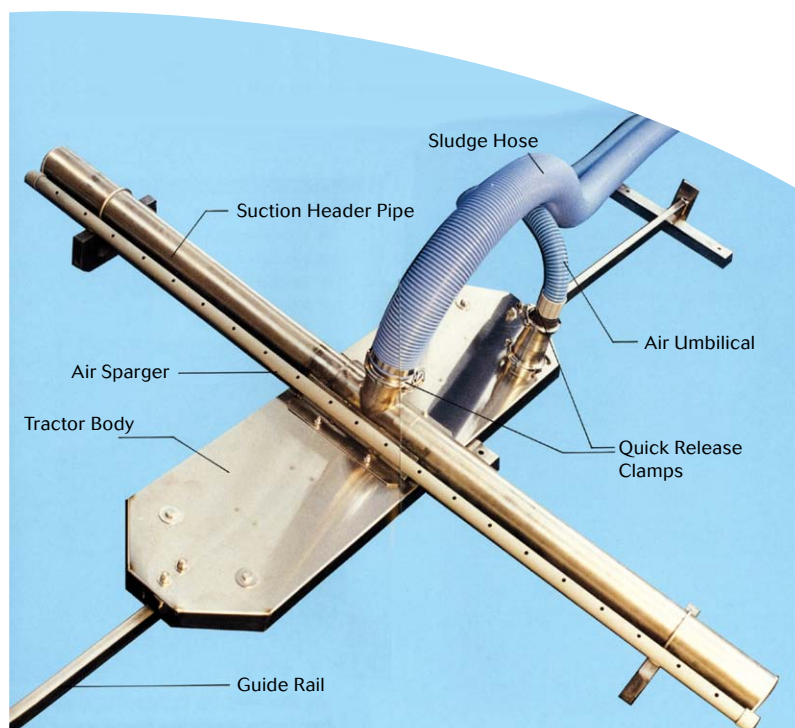
Length and diameter of the stainless steel header pipe and the size and number of suction orifices are determined by the application.

### Air Sparger

An optional air sparge system provides air scour cleaning for inclined plate settling devices above the Trac-Vac unit.

### Sludge Hose

Durable, UV resistant, high density polyethylene hose carries sludge away from the tractor unit. Hoses are smooth on the interior and ribbed on the outside for flexible.



## Performance Features and Options

### Guide Rail

Tubular stainless steel rails guide tractor units through the basin. Interlocking sections are easily transported and assembled.

### Air Umbilical

Air supply lines between the local pneumatic panel and the tractor are enclosed in a protective sheath, manufactured from the same high density polyethylene as the sludge house.

### Quick Release Clamps

Stainless steel toggle clamps allow faster, more convenient removal and replacement of hoses than screw type clamps.

### EWT Trac-Vac Extractor

The tractor mechanism requires only infrequent servicing. When it does, Ovivo's exclusive Trac-Vac extractor lifts the unit out of the basin for easy access maintenance, without draining the basin. When servicing is complete, the tractor is quickly reinserted and indexed against the guide rail.

### Low Profile

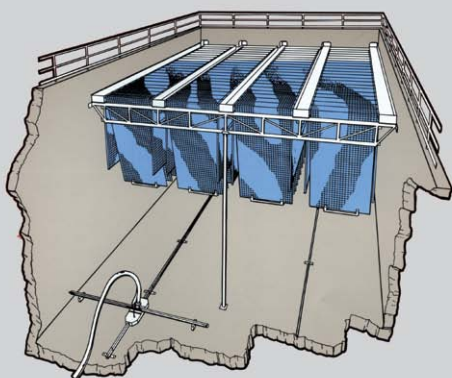
The low-profile Trac-Vac unit travels beneath plate settlers, making Trac-Vac sludge collectors an ideal means of improving plate settler performance by removing accumulated solids from underneath laminar settling devices. Collection can be easily tailored to suit any rate and pattern of deposition.

### Control Panels

A programmable electronic controller directs the collector units and activated sludge valves or pumps. Air flow is managed through an interface of electrically activated solenoid valves. A single control panel can operate as many as fifty collector units and associated valve panels. All cabinets are constructed of anodized aluminum and meet NEMA-4 specifications for outdoor service. The programmable control unit allows flexibility in the patterns of solids collection available to plant operators. By varying combinations of tractor speed, short or long trip and one-way or round-trip travel, a customized sludge removal program may be established for every clarifier.

### Modular Components

Lightweight, modular construction helps to keep installation costs down, with installation taking a fraction of the time of that required for competing systems. Modular components also allow simple Trac-Vac installation in any existing clarifier basin, whether square, circular or rectangular, without costly concrete modifications. All components of the Trac-Vac system are light enough to be carried into the basin by a single man.



EWT<sup>™</sup> Trac-Vac<sup>®</sup> Collectors<sup>™</sup> installed with EWT<sup>™</sup> FlexKlear<sup>™</sup> Plate Settlers



### **Programmable controls solve tough settling problems for Louisville, Colorado**

Operators at Louisville's water treatment plant face a problem that others might find enviable.

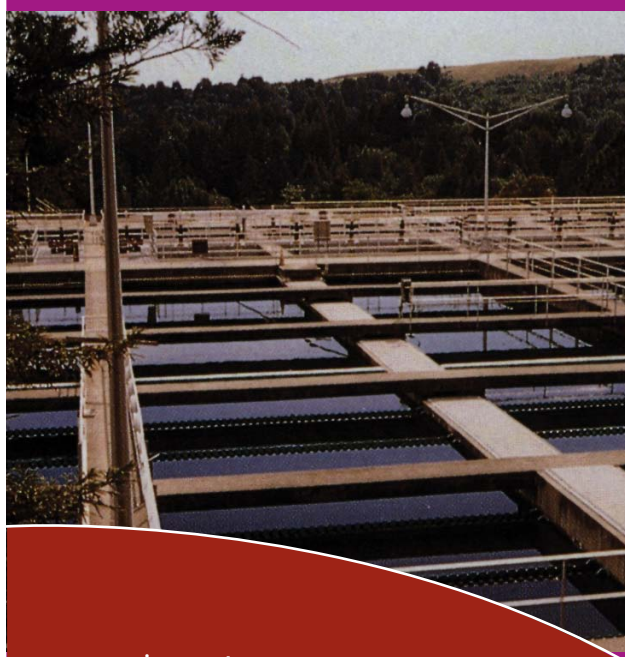
Turbidity of influent water is so low (normally less than 1 NTU) that settling those solids that do exist is extremely difficult. Their solution has been to stockpile sludge from the clarifiers and recycle it to the flocculator. This achieves turbidities in excess of 1000 NTU, allowing excellent floc formation and good polishing performance from the clarifiers. Periodically, a waste cycle sends excess solids back to the clarifier which then functions as a thickener, with flow from the sludge collectors discharged to the municipal wastewater system. Successful operation is dependent on the sludge removal system accommodating fluctuating solids loading and changing patterns of deposition. To achieve this, our engineers programmed Trac-Vac controls to provide several different collection modes.

In normal operation with solids recycling, collectors run short trips started by a clock in the controller, with one long trip in every 24 hour period. During wasting, collectors run continuously in alternating long and short trips. Operators can also select just long or short trips to cover any deposition pattern that may occur.

### **Tailored Retrofit for Challenging Wastewater Treatment Basin at Roanoke, Alabama**

A tailored retrofit sludge collection system was installed for the challenging basin at Roanoke.

Trac-Vac units were installed on converging rails, meeting at the upper end of the sloping, wedge-shaped basin. The connecting sludge collection pipe was supported by a custom-built stainless steel truss. A third, pivoting collector was installed in a circular rail, replacing a conventional rake system.



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