Raptor® Septage Acceptance Plant

For Municipal Wastewater, Septage and Grease Trap Applications

LAKESIDE EQUIPMENT CORPORATION
Water Purification Since 1928

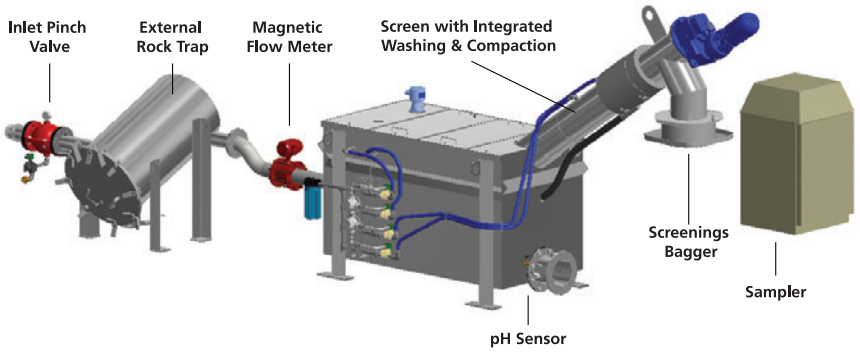
Cleaner Water for a Brighter Future®

The Lakeside *Raptor*® Septage Acceptance Plant

Many wastewater treatment plants process municipal, industrial, and septic tank sludges that contain debris and inorganic solids such as hair, plastics, grease, and hygienic materials. However, if not addressed appropriately, this debris can damage downstream equipment by clogging pumps and valves, decreasing aeration effectiveness, and dewatering and filtering equipment and sludge digestion.

The SAP is a pre-engineered, self-contained, fully automated unit that removes debris and inorganic solids that typically pass through a conventional bar screen. Anchored by the reliable, heavy-duty *Raptor*® Fine Screen, the SAP is a simple, efficient way to pre-treat the increasing amount of municipal, industrial, and septic tank sludges processed at wastewater treatment plants.

Engineers, owners, and private companies recognize Lakeside as the industry leader in the design of septage acceptance equipment.



Large Capacity External Rock Trap

Raptor® Septage Acceptance Plant Diagram

Operators rely on the Lakeside *Raptor*® Septage Acceptance Plant for minimal maintenance, advanced administrative features, and faster load processing that attracts more haulers, allowing the unit to pay for itself in a short time frame.

Standard Features of the Lakeside SAP Offer Instant Benefits

- Large capacity and rapid screen cleaning cycle process
- Pre-engineered to reduce design and installation costs
- Single motorized component, simple design, and easy operation improve reliability and reduce maintenance
- All AISI Type 304 stainless steel construction provides superior corrosion resistance
- Small footprint reduces total building volume and saves heating expenditures
- Reliable water-actuated pinch valve controls flow into the SAP
- Full-penetration rake head removes all captured debris/grease from the screen basket bars
- Two-stage washing feature lowers organic content/drier solids content
- Large compaction zone and 2 hp drive create a dry solid content of 40-50%, reducing screenings volume by 50% and weight by 67% for reduced disposal costs
- Contains septage, minimizes odors, and reduces insect and rodent attraction
- Pre-assembled, pre-wired, and pre-plumbed to enable one-day installation
- Integrated controls save design and installation costs

Skid-Mounted Designs

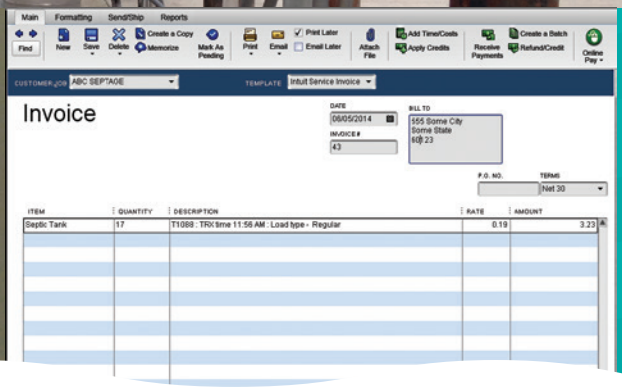
Magnetic Flow Meter

Optional Features Offer Even More Flexibility and Value

- AISI Type 316 stainless steel offers increased corrosion resistance for applications with chloride concentrations greater than 200 mg/L
- Explosion-proof enclosure that meets Class I/Division 1 or 2/Group D electrical environment
- Multiple inlets that allow operators to easily unload multiple tanker trucks at the same time
- Heat tracing, insulation, and protective cover for outdoor installations
- Individual bags or continuous hose bagger for odor control and to prevent re-hydration of screenings for outdoor installations
- Rock trap designs with 5 cubic feet of capacity to meet specific project requirements
- Magnetic flow meter that measures/totalizes flow from each septage tanker for billing purposes
- pH monitoring to detect septage outside the allowed pH range established by the plant
- Automatic sampling that allows owner to test each septage load
- Skid-mounted designs
- *Raptor*® Septage Complete Plant with screening, grit removal, and optional grease removal

Raptor® Acceptance Control System (RACS)

RACS Station for Security Access



Data Management and Invoicing

Management and Accounting System

A pre-configured personal computer periodically scans the RACS hauler station for new transactions and automatically enters them into an accounting system that permits customer tracking, invoicing and report generation. Plant personnel can manage hauler accounts and invoice septage haulers. The software package allows owner to:

- Receive data from up to ten RACS control stations
- Manage septage hauler identification information
- Generate reports and invoices and receive payments
- Record date, gallons and waste type for each load
- Permit entry of a minimum of five waste types and cost per gallon charges
- Import and export data
- Allow manual entry/import of load transactions

Raptor® Acceptance Control System (RACS) (Cont.)

The RACS is an optional feature of Lakeside Equipment Corporation's *Raptor* Septage Acceptance Plant that provides security access, load management, and invoicing capabilities.

Hauler Access, Invoicing and Data Acquisition
Plant administrators can create and manage customer and truck account information; control sampling and access on a truck-by-truck basis; track the number and sizes of loads for each hauler; and assign PIN numbers from the office. Non-proprietary data format with no license fees.

Allen-Bradley Programmable Logic Controller
Built-in Ethernet communications enable the RACS hauler station to work directly with an inlet flow control valve and magnetic flow meter to allow access/record unloading of each authorized hauler.

Allen-Bradley PanelView Plus Operator Interface
Haulers receive access by a plant-assigned PIN number that activates the system, opens the inlet flow control valve, and allows the hauler to select one of five waste types on a touch screen. A magnetic card swipe or a key switch (with or without PIN) is also offered. A credit card access system with PIN number can be provided in lieu of an owner billing system.

Data Storage and Retrieval
The RACS touch screen makes data accessible via an Ethernet communications interface. A USB data port is standard for use with a removable flash drive. Comma Separated Variable (CSV) files can be viewed with most spreadsheet or database software.

Printer
The septage hauler receives a printout of the load details, including date, time, hauler name, waste type, total gallons uploaded, elapsed time for unloading and any faults incurred, if applicable.

Weather Protection Package

Raptor® Septage Complete Plant

Treatment equipment and process solutions from Lakeside Equipment Corporation

Lakeside offers a wide range of equipment and systems for virtually all stages of wastewater treatment from influent through final discharge. Each process and equipment item that we supply is manufactured with one goal: to reliably improve the quality of our water resources in the most cost-effective way. We have been doing just that since 1928.

Screw Pumps
- Open Screw Pumps
- Enclosed Screw Pumps

***Raptor*® Screening**
- Fine Screen
- Micro Strainer
- Rotating Drum Screen
- Septage Acceptance Plant
- Septage Complete Plant
- Complete Plant
- Multi-Rake Bar Screen
- FalconRake® Bar Screen
- Rotary Strainer Screen
- Wash Press

Trash and Screen Rakes
- Hydronic T Series
- Monorail Series
- HY-TEC Screen

Grit Collection
- SpiraGrit® Vortex Grit Removal System
- Aeroductor Grit Removal System
- In-Line Grit Collector
- *Raptor*® Grit Washer
- Grit Classifier
- H-PAC®

Clarification
- Spiraflo Clarifier
- Spiravac Clarifier
- Full Surface Skimming

Biological Treatment
- CLR Process
- Magna Rotor Aerators & Accessories
- Sequencing Batch Reactors
- Continuous Flow Sequencing Batch Reactors
- Package Treatment Plants
- Submersible Mixers & Recirculation Pumps

Hauled Waste Receiving Systems
- *Raptor*® Septage Acceptance Plant
- *Raptor*® Septage Complete Plant
- *Raptor*® FOG Acceptance Plant

Package Headworks Systems
- *Raptor*® Complete Plant
- H-PAC®

Biological Treatment Systems
- CLR Process
- E.A. Aerotor Plant
- Sequencing Batch Reactors
- Continuous Flow Sequencing Batch Reactors

LAKESIDE EQUIPMENT CORPORATION
Water Purification Since 1928

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