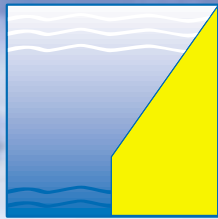
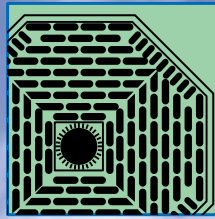


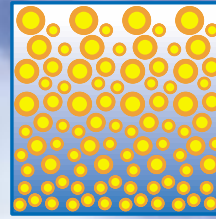
Continuous Flotation Systems



Continuous Sedimentation Systems



Batch Filter Press Systems



Biological Treatment Systems



Water Washer Systems

BECKART

Systems, Processes, & Programs

Worldwide Resourceful Wastewater Solutions

Resourceful Wastewater Solutions

With over 1,200 treatment systems installed worldwide since 1978, Beckart Environmental has experience with practically every challenging wastewater problem imaginable. We've learned that most can be easily and cost-effectively addressed, though no single technology offers the best single solution for everyone.

Our approach has been to develop a *complete* product line, ensuring that we can offer a system that fits your needs, rather than the other way around.

Beckart provides the ***in-house design, engineering, manufacturing, and service resources*** that guarantee optimum system cost performance, quality of water for discharge or reuse, and ease of operation.

Markets Served

- Corrugated Containers
- Flexographic Printing
- Packaging
- Metal Finishing/Plating
- Die Casting
- Machining
- Paints/Adhesives
- Textiles/Tanneries
- Industrial Laundries
- Vehicle/Equipment Wash
- Food Processing
- Rendering/Grease Traps
- and others

The Beckart Advantage

Single Supplier Responsibility

- Equipment commissioning, training, chemicals, and aftermarket service – one source for your total satisfaction with start-up and long-term performance.
- Optimized formulations and engineered designs provide “system” approach for greater production and disposal efficiencies.



Problems Solved

- Heavy Metal Reduction
- Oil & Grease Reduction
- Fluoride
- Phenols
- BOD/COD Reduction
- TSS Reduction
- VOC Reduction
- pH Neutralization
- Cyanide Destruct
- Chrome Conversion
- Surcharge Reduction
- and others

Total System Flexibility

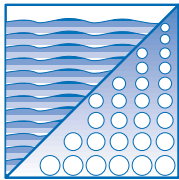
- Systems easily adapt to existing plant operations and feature expandable components to respond to future changes in plant processes and discharge standards.
- UL listed control panels, programmable logic controllers, and a wide range of automation options provide versatility and exceptionally easy operator interface.

Total System Quality

- In-house engineering, manufacturing, service/chemical support, and other capabilities combine for top quality at a competitive cost.
- Operational cost savings – affordable cost-to-treat, low maintenance, limited downtime, ready supply availability, and expanded disposal options.

Services Offered

- Treatability Studies
- Permitting Assistance
- Project Management
- Turnkey Installations
- Start-up & Training
- Field Service
- Worldwide Chemical Support

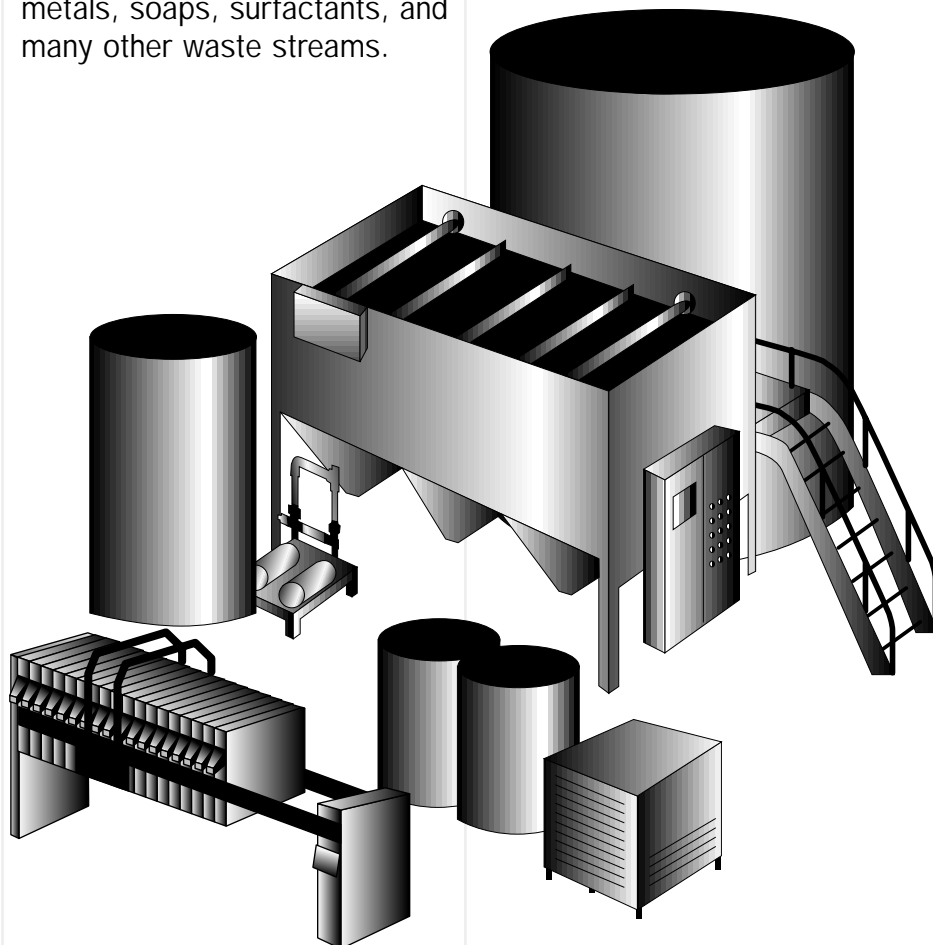
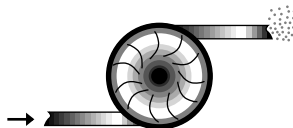


Continuous Flotation Systems

Engineered to reliably handle larger volumes of wastewater — typical flow rates of more than 5,000 gallons per day (20 m³ per day) — Beckart's continuous flotation systems provide a highly effective solution

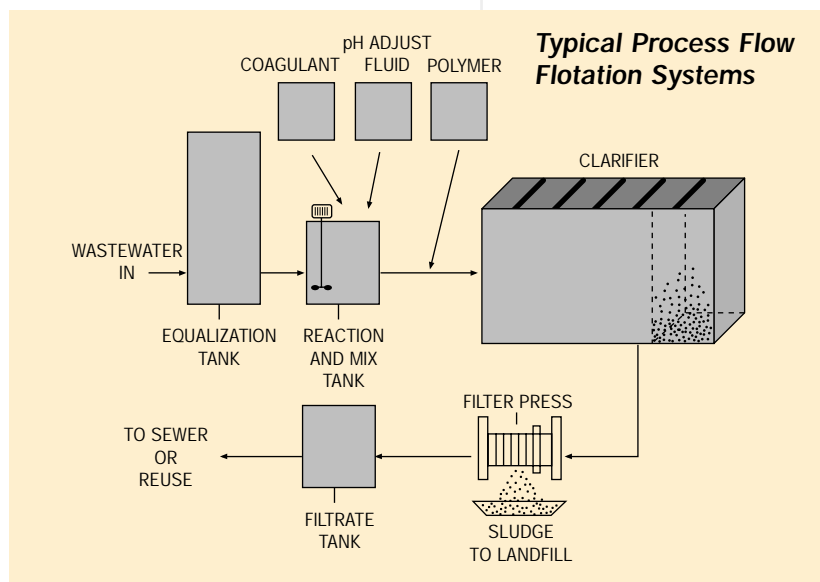
for treating wastewaters containing free-floating or emulsified oils, dissolved heavy metals, soaps, surfactants, and many other waste streams.

For many applications, air flotation is the system of choice. Micro-bubbles are produced by inducing air into a vortex as the floc is formed. This controlled induction of air allows the micro-bubbles to permanently attach to the floc, resulting in consistent flotation in the clarifier. The clarifier has a built-in sludge-holding section.

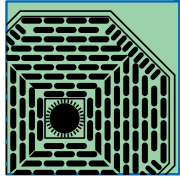


Capacity:

5 - 1,000+ gallons per minute
(1 m³ - 225+ m³ per hour)



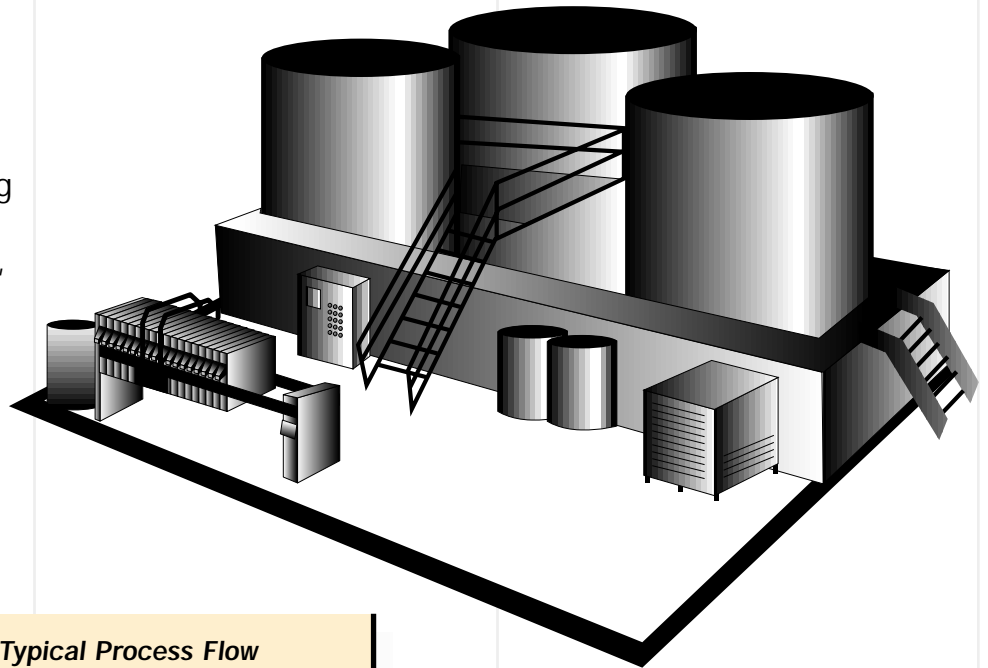
Beckart offers dishbottom (or hopper bottom) tanks and clarifiers for thorough evacuation and ease of cleaning.



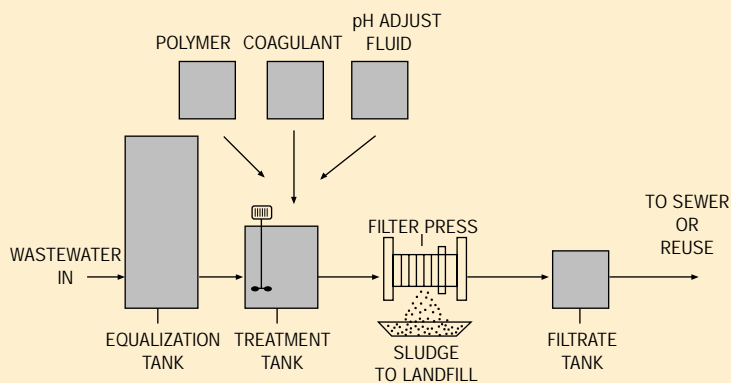
Batch Filter Press Systems

Versatile and flexible, Beckart's Batch Process

Systems are particularly well-suited for wastewaters containing high solids. Typical applications include ink, paint, metal finishing, starch, plating solutions, and many others.



Typical Process Flow Batch Filter Press Systems



Capacity:

400 - 10,000+ gallons per batch.
(1.6 m³ - 37+ m³ per batch).



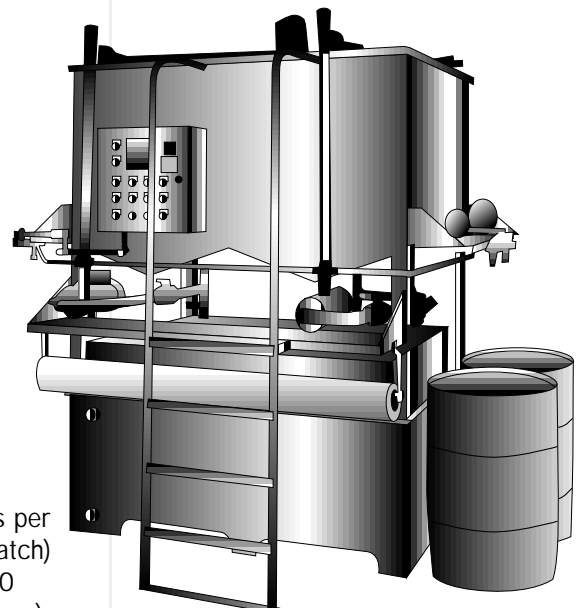
Water Washer Systems

This Batch/Flotation System is perfect for lower solids

waste streams. Water Washers offer a compact, self-contained process for treating oily waste and metals at the same time, including water containing coolants, cutting oils, vibratory waste, and other waste streams.



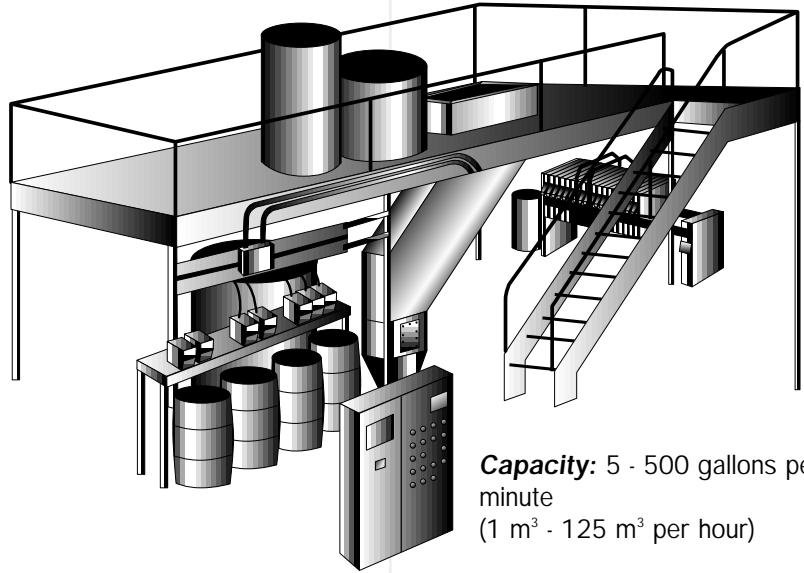
Capacity: 50 - 1,000 gallons per batch. (0.2 m³ - 4.0 m³ per batch)
Floor space required: 9 - 60 square feet (1 - 6 square meters).



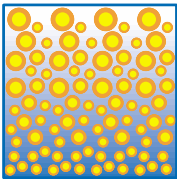
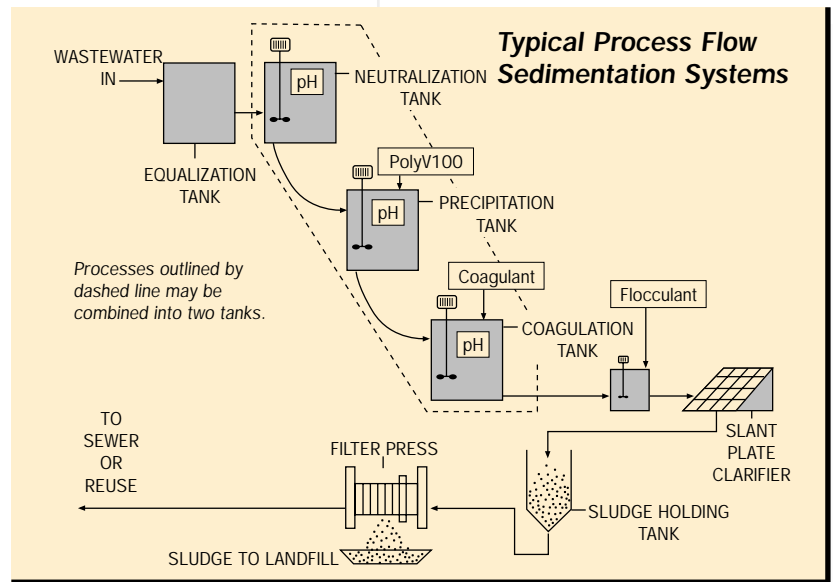


Continuous Sedimentation Systems

Many waste streams, such as those typically found in metal finishing, wire manufacturing, phosphatizing, and plating environments, can be effectively treated with our sedimentation technology. Beckart has years of experience with related processes – including concentrate bleed-in, neutralization, and chrome/cyanide destruct – to provide total water and resource management solutions.



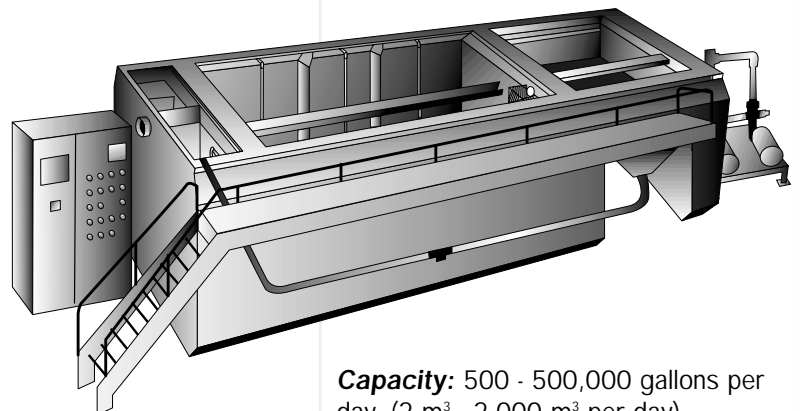
Capacity: 5 - 500 gallons per minute
(1 m³ - 125 m³ per hour)



Biological Treatment Systems

Available as stand-alone or secondary modules for the reduction of BOD, COD, and a wide range of dissolved organic matter, our biological treatment systems provide a comprehensive approach with applications in the food, textile, paper, and many other industries.

automation features and training to maximize ease of operation, our customers are assured of a seamless interface between treatment schemes.



Capacity: 500 - 500,000 gallons per day.
(2 m³ - 2,000 m³ per day).

Because we use environmentally-friendly pretreatment chemistry that readily corresponds to the needs of biological treatment, and provide all necessary

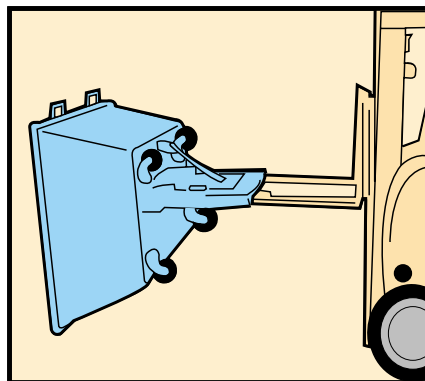
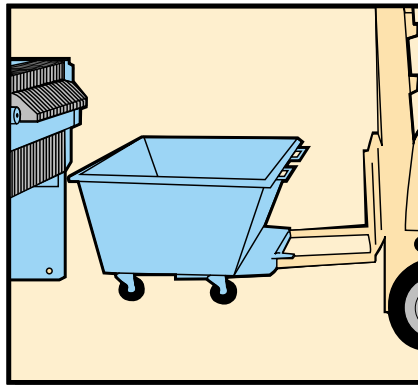
Options for PLC-equipped Systems

Beckart tailors every wastewater treatment system to the exact requirements of the customer, including the degree of automation desired. Systems equipped with programmable logic controllers (PLCs) provide an exceptionally user-friendly method of controlling system function; our custom software is factory installed and configured to make all necessary chemical and engineering decisions with minimal operator time requirements.

- **Data Table Access Module (DTAM)** — allows operator to monitor and modify timers, counters, and integer data files in the PLC program; supports multiple foreign languages.
- **Running Light Schematic** — provides overall view of the system status in an LED-illuminated diagram.
- **PanelView Graphic Display** — operator interface with graphics capability that allows system data modification and manual motor/solenoid On/Off selection.
- **Rapid Response Support System** — a telecommunications module which allows Beckart technicians to program, monitor, and control system operation via a telephone line.

Optional and Related Equipment

- Hy-Pack® Filter Presses (Recessed Plate)
- Infrared Sludge Dryers
- Rotary Screens
- Sludge Trays & Carts



Beckart systems feature forkliftable sludge trays & carts – material handling made easy!

Better Treatment Through Optimized Chemistry

Beckart maintains comprehensive in-house chemical research and lab facilities, as well as a worldwide network of chemical warehouses. The best chemistry for the application is always available in the most timely and cost-effective manner. Our chemical formulations ensure an optimized treatment scheme — flocs form thoroughly, filter press cycle times are decreased, cakes are drier and more compact.

- **Coagulants (Organic and Inorganic).**
- **Polymers (Anionic and Cationic).**
- **pH Adjust Fluids.**
- **Sludge Conditioners.**
- **Metal Scavengers.**
- **Available in drum, tote, and bulk quantities.**



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