

INDUSTRIAL WASTEWATER

Disolved Air Flotation for Drum Cleaning

Industry: Chemical Drum Cleaning/Recycling
System: 100 gpm Waste Water Treatment System
Location: South Carolina
Goals: Remove Oil & Grease, Suspended Solids, Colors, BOD, COD

Project Overview:

Our state-of-the-art Waste Water Treatment System (WWTS) installed at a leading company utilizes a Reaction Tanks Unit (RTU), Dissolved Air Flotation (DAF), Sludge Handling and Filter Press to treat plastic/metal drums rinse wastewater. It is designed to achieve up to 70% recycle/reuse in a Chemical Drum Cleaning/Recycling industry.

Critical Issues:

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|--|-----------------------------------|
| Complex contaminants & varied flow | Stringent discharge limits |
| Plant expansion w/ added water & wastewater load | Reduced O&M costs |
| Long equipment life & high durability | Fast-Track, concept to completion |

Vision for Solution:

- DAF in lieu of Clarifier to remove floatable suspended solids, reduce chemical feed, reduce sludge waste, achieve 70% recycle/reuse quality, and handle added expansion load
- DAF maximizes ROI with a one year payback through chemicals savings and reduced sludge
- Utilize our standard products & pre-packaged system design for fast-track turnkey project delivery and performance guarantee
- 304 SS Fabrication on Reactor Tanks & DAF for long life & high durability
- PLC controlled system for minimum operator attention
- Modular design with expansion capability for future needs

Project Scope:

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|--------------------------|-----------------------------|
| Treatability/Pilot Study | Detailed Design/Engineering |
| System Fabrication | Controls Integration |
| Field Installation | Commission/Startup |
| Ongoing Service | |

Equipment Description:

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|-------------------|------------------------------|
| Equalization Tank | Influent Pumps |
| Chemical Feeds | 304 SS Reaction Tanks Unit |
| 304 SS DAF System | Sludge Handling/Filter Press |
| Recycle Pumps | PLC Controls |
| Platforms/Stairs | |



Special Features:

- PLC controlled system enables automation for minimal operator attention
- Process monitoring include flow, level, pressure, pH, etc
- 304 SS Fabrication for Reactor Tanks & DAF
- Modular expandability and future add-on capability for changing needs