Product Sheet

FRC
A Sulzer Brand

Your Trusted Wastewater Solutions Provider

Product Sheets

Equipment & Services

FRC Systems International Headquarters
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Equipment & Services

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High-Rate DAF System

PCL-Series

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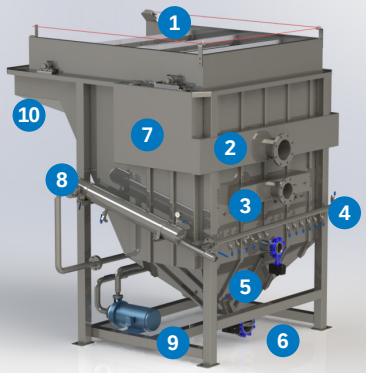
The PCL-Series DAF delivers efficient, reliable, and compact wastewater treatment, with high performance, energy savings, and environmental sustainability.



1. Skimmer Flights
2. Effluent Flange
3. Influent Flange
4. Dissolved Air Dispersion Manifold
5. Sand Trap Outlet
6. Settled Sludge Outlet
7. Plate Pack (tank interior)
8. Air Dissolving Tube
9. ANSI Recycle Pump
10. Float Discharge

Flow Rate	Free Area	Effective Area	Materials
24 - 1,980 gpm	5.5 - 151 sq ft	32 - 3,101 sq ft	Stainless Steel

The FRC series of PCL Dissolved Air Flotation (DAF) units are high-built (tall) solid/liquid separators engineered for a variety of flow rates and applications. The PCL-Series design utilizes a combination of cross flow plate pack technology and the sludge dewatering grid to generate sludge with high dry solids content.

Cross-Flow Plate Pack

Inclined corrugated plate packs are installed within the PCL-Series DAF units and are arranged for water to flow in a cross-flow configuration. These plate packs increase the effective area of the DAF unit, increasing hydraulic capacity. The increased hydraulic capacity allows for effective solids separation with a smaller footprint.

Air Dissolving Tube with ANSI Pumps

The PCL-Series utilize the FRC angled air dissolving tube and an ANSI standard, non-proprietary pump to generate whitewater. ANSI recycle pumps bring clarified effluent to the air dissolving tube where it is mixed with a small volume of compressed air until saturation is achieved. The angled configuration of the tube allows for increased water and air interface so saturation occurs almost instantly. This robust and efficient system eliminates the need for costly specialty whitewater pumps.

Sludge Dewatering Grid

FRC's PCL-Series DAF unit employs the sludge dewatering grid to hold sludge in place as it thickens and self-dewaters. The Dewatering Grid helps:

- **Operators control sludge thickness**
- **Eliminate pre-mature removal of solids**
- **Reduce build-up and/or re-entrainment of sludge**
- **Generate drier sludge**

As with all FRC DAF systems, the PCL-Series is engineered for efficiency, reliability, and ease of operation. Automated controls and instrumentation remove process uncertainty and reduce the opportunities for user error. PCL units can be delivered in a turn-key fashion including controls, pumps, chemical feeders - all pre-wired, pre-plumbed, and skid mounted.

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Compact DAF System

PCCS-Series

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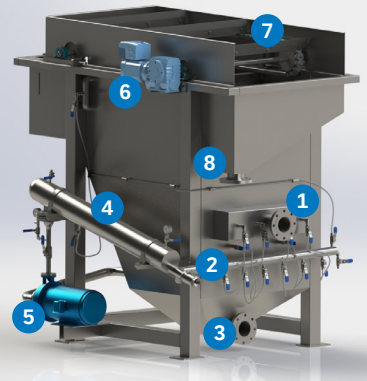
The PCCS-Series is designed to maximize free and effective separation area within its compact frame. This allows for higher hydraulic and solids loading than other similarly sized DAF units.



1. Influent Flange
2. Whitewater Manifold
3. Solids Drain Valve
4. Air Dissolving Tube
5. Recycle Pump
6. Skimmer Drive Motor
7. Skimmer Assembly
8. Float Sludge Hopper

Flow Rate	Free Area	Effective Area	Materials
24 - 1,980 gpm	5.5 - 151 sq ft	32 - 3,101 sq ft	Stainless Steel

Designed for Easy Transport

The PCCS Series DAFs are specifically designed to fit inside standard 20' ISO shipping containers. This makes transporting the DAFs easier and more cost efficient, especially by sea. Customers can avoid the high premiums paid for custom-crated DAFs and flat rack shipping.

Air Dissolving Tube with ANSI Pumps

The PCCS Series utilize the FRC angled air dissolving tube and an ANSI standard, non-proprietary pump to generate whitewater. ANSI recycle pumps bring clarified effluent to the Air Dissolving Tube where it is mixed with a small volume of compressed air until saturation is achieved. The angled configuration of the tube allows for increased water and air interface so saturation occurs almost instantly. This robust and efficient system eliminates the need for costly specialty whitewater pumps.

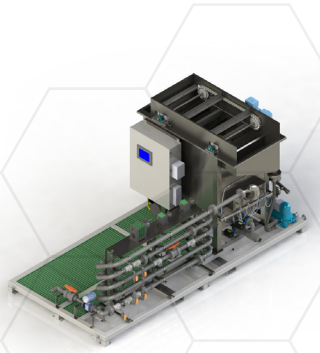
As with all FRC DAF systems, the PCCS series is engineered for efficiency, reliability, and ease of operation. Automated controls and instrumentation remove process uncertainty and reduce the opportunities for user error. PCCS units pair perfectly with F-Series pipe flocculators and can be delivered in a turn-key fashion

PCCS DAF systems fit into standard 20ft ISO shipping containers for easy transport by land or sea.

Skid-Mounted PCCS DAF

PCCS DAFs can be supplied in a plug-and-play fashion to accommodate end users looking for a complete solution. The skid fits inside a standard shipping container for easy transport overseas or to remote job-sites. Components are customizable and can include:

- **Feed Pump**
- **Flow Instrumentation**
- **Flocculator**
- **Chemical Feed Pumps**
- **Air Compressor**
- **Sludge Pump**
- **Electrical Control Panel**
- **Catwalk**



Open-Tank DAF System

PWL-Series

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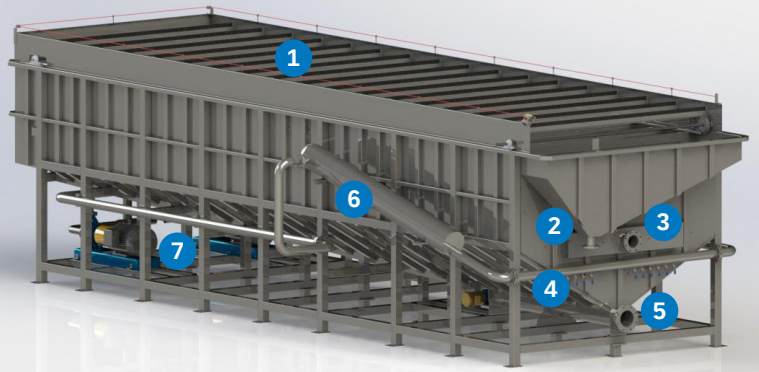
The PWL-Series DAF delivers efficient and reliable wastewater treatment, designed for high solids content, with superior performance, operational ease, and environmental sustainability.



1. Skimmer Flights
2. Float Discharge
3. Wastewater Inlet
4. Whitewater Dispersion Manifold
5. Settled Sludge Outlet
6. Air Dissolving Tube
7. ANSI Recycle Pumps

Flow Rate	Free Area	Effective Area	Materials
20 - 1,020 gpm	14 - 510 sq ft	14 - 510 sq ft	Stainless Steel

FRC's PWL-Series DAF units are low built solid/liquid separators engineered for high solids applications. The large surface area of the PWL design is optimal for reducing hindrance and carry over that occurs at high solid concentrations. The PWL-Series units are rectangular in shape and can be built wider and longer as more free separation area is needed.

Counter-Current Skimmer

In the PWL-Series DAF system, water enters the DAF in a flow-through orientation – wastewater comes in one end and out the other. While many other DAF designs push sludge in the same direction of the water flow, the PWL design pushes sludge in the opposite direction. This design shortens the sludge skimming distances and eliminates solids carry-over.

Efficient and Economical Whitewater

The PWL-Series utilizes non-proprietary ANSI standard pumps and an angled air dissolving tube for whitewater generation.

- **Eliminate need for costly specialty whitewater pumps**
- **High tolerance for solids in recycle water**
- **Angled air dissolving tube for increased air-water interface**

Sludge Dewatering Grid

The FRC PWL-Series DAF unit employs the sludge dewatering grid to hold sludge in place as it thickens and self-dewaters. The dewatering grid helps:

- **Operators control sludge thickness**
- **Eliminate pre-mature removal of solids**
- **Reduce build-up and/or re-entrainment of sludge**
- **Generate drier sludge**

As with all FRC DAF systems, the PWL-Series is engineered for efficiency, reliability, and ease of operation. Automated controls and instrumentation remove process uncertainty and reduce the opportunities for user error. PWL units pair perfectly with F-Series pipe flocculators and can be delivered in a turn-key fashion including controls, pumps, chemical feeders – all pre-wired, pre-plumbed, and skid mounted.

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F-Series

Flocculators

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FRC's F-Series Flocculators efficiently coagulate and flocculate suspended solids using no moving parts or external energy inputs, such as mechanical mixers. Having proper chemical addition prior to DAF is critical for effective solid separation.

1. Influent Flange
2. Coagulant Injection Port
3. Zone 1 Mixer
4. Long Radius Bends
5. Polymer Injection Port
6. Zone 2 Mixer
7. Air Injection Ports (back)
8. Effluent Pipe

Flow Rate
7 - 4,000 gpm

Materials
PVC, Stainless Steel, HDPE

FRC Flocculators come standard with fittings for chemical dosing, sampling, and whitewater injection. Model capacities are available up to 4,000 GPM. Materials of construction available in HDPE, PVC, SS304, and SS316.

Air Injection Ports

F-Series Flocculators include air injections ports to introduce micro bubbles prior to DAF. This allows air to be entrained in the structure of the flocculated solids. Benefits include:

- **Faster separation in DAF vessel**
- **Smaller DAF tank requirements**

Wide Radius Pipe Sweeps

FRC's F-Series Flocculators utilize sweeping, wide-radius fittings for pipe turns. This eliminates shearing at pipe bends so that flocs can grow larger over the rest of their retention time in the flocculator. By not shearing flocculated solids after formations, operators will require less chemicals to achieve the desired level of separation and clarification.

In-line Mixing Zones

The in-line mixing zones increase particle collisions which aid in chemical dispersion and floc formation. This method avoids the use of mechanical components, simplifying both operations and maintenance. The mixing zones of each flocculator are uniquely designed based on the GT values, flow rate, and application to achieve the best performance.

Corrugated Plate Interceptor (CPI)

Oil & Water Separator

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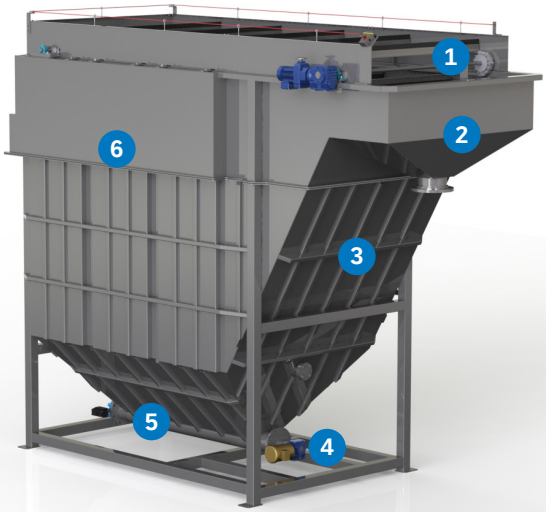
The Corrugated Plate Interceptor (CPI) is an efficient and low maintenance method of recovering oil from a variety of industrial wastewater streams.



1. Skimmer Assembly
2. Float Sludge Hopper
3. Stainless Steel Tank
4. Settled Sludge Outlet
5. Settled Sludge Auger
6. Effluent Clearwell

Flow Rate	Free Area	Effective Area	Materials
24 - 6,000 gpm	5.5 - 151 sq ft	32 - 3,101 sq ft	Stainless Steel

CPI technology takes advantage of the dissimilar densities between oils, solids and water to achieve separation. CPI separators provide a large effective separation area in a small footprint allowing for operation at low hydraulic surface loading rates for maximum removal efficiencies.

Operator Friendly

Minimal moving parts, low maintenance and process resiliency are all hallmarks of FRC's CPI design approach.

Applications where CPI systems excel include:

- **Refinery Effluent**
- **Produced Water**
- **Frac Flowback**
- **LNG Terminals**
- **Renewable Fuel**
- **Terminals**
- **Truck and Rail Stations**

Above Ground Units

- **Rotating skimmer (RS) or a static skimmer (SS).**
- **Cover options - open style, non-gas tight and gas-tight**
- **Flow rates up to 6,000 gpm**
- **304 or 316 SST construction**

Below Ground CPI

- **Plate Pack Assemblies (PPAs), per industry standards, for installation in below ground concrete tanks.**

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Sludge Dewatering

Belt Filter Press

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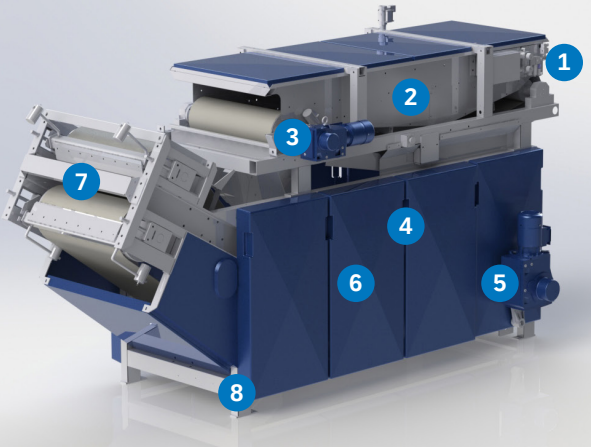
FRC's sludge dewatering belt filter press efficiently removes water, reducing sludge volume with minimal energy, robust construction, and reliability.



1. Sludge Inlet
2. Gravity Dewatering Zone 1
3. Thickener Belt Drive
4. Gravity Dewatering Zone 2
5. Pressing Belt Drive
6. Pressing Zone
7. Cake Discharge
8. Stainless Steel Frame

Flow Rate	Effective Belt Width	Effective Area
132 - 21,133 gph	600 - 3000 mm	3.3 - 36 m^2

Sludge management is a challenging task, but with the right technology, it becomes far more efficient and controlled. FRC's belt filter press systems streamline the process through automated stages, including gravity thickening, wedge pressing, and self-cleaning, delivering clean and consistent results.

Stacked Dewatering Zones

While many competitive dewatering systems employ linear designs, FRC presses are built with dewatering zones stacked vertically, so equipment takes up less floor space.

Materials of Construction

Constructed of stainless steel and high-grade plastics, our presses are extremely resistant to fouling and corrosion. We can provide belt presses in a variety of alloys to meet your application needs.

Complete Belt Filter Press Systems

Belt presses are available in three configurations in sizes between 1/2 and 3 meters and flow rates up to 21,000 gallons per hour.

Belt press applications can be enhanced with auxiliary equipment such as:

- **Sludge feed pump**
- **Polymer dosing system**
- **Flocculators/Plug Flow Reactor (PFR)**
- **Continuous-Stirred Tank Reactors (CSTR)**
- **Wash water pump and tank**
- **E-Panel with PLC & HMI**

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Sludge Dewatering

Multi-Disc Screw Press

FRC
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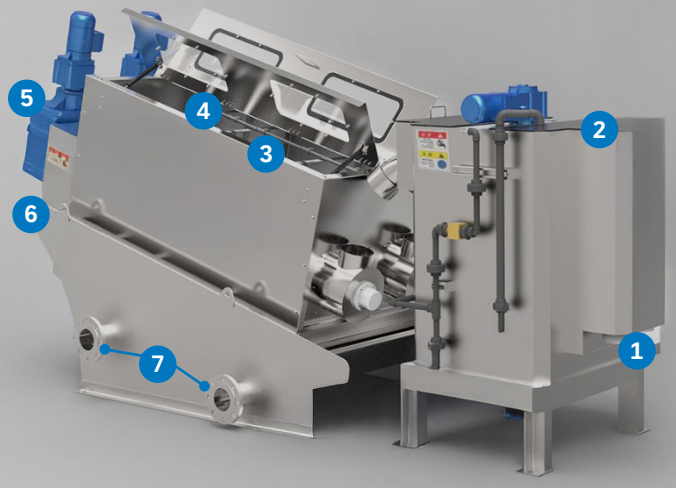
This advanced system dewaters sludge through mechanical compression and gravity filtration, ensuring optimal performance and minimal maintenance.



1. Sludge Inlet
2. Flocculant Tank
3. Screws
4. Spray Nozzles
5. Gear/Motor Assembly
6. Sludge Outlets
7. Filtrate Outlets

Flow Rate	Dry Solids	Materials
2 - 440 gpm	4 - 2920 lbs/hr	Stainless Steel

Managing sludge can be challenging, but not with the Multi-Disc Screw Press from FRC Systems. By leveraging the advantages of FRC's Multi-Disc Screw Press, wastewater treatment facilities can achieve efficient, cost-effective, and environmentally friendly sludge dewatering.

Advanced Dewatering Mechanism

Unlike conventional screw presses, the Multi-Disc Screw Press employs a multi-disc assembly, which integrates thickening and dewatering in a single process. This design ensures consistent clog-free performance while minimizing maintenance.

Customizable Solutions

Available in various configurations and sizes to meet diverse application needs, the Multi-Disc Screw Press can handle concentrated or dilute sludge flow rates up to 4,000 lbs.-DS/hr. while achieving dry solids content of 20% and higher depending on the application.

Why Choose FRC Systems' Multi-Disc Screw Press over other sludge dewatering equipment?

- **Higher solids capture rate:** Achieve drier sludge cake, thus reducing disposal costs.
- **Efficiency:** High dewatering efficiency with much lower energy, water and chemical consumption.
- **Ultra-low water consumption:** 5 gal/hr. per screw or less, considerably lower than other technologies.
- **Lower maintenance requirements:** Due to self-cleaning, minimal moving parts and durable materials, such as screw tungsten carbide coating.
- **Operational simplicity:** Highly automated and continuous process with minimal downtime, ensuring consistent performance and reliability
- **Clog-free design**
- **Low noise & odor**

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Rotary Drum

Screen Systems

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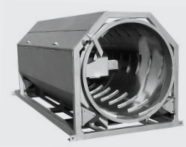
FRC Systems' screens remove solids from wastewater, reducing TSS and FOG, with customizable, efficient, and durable designs.

	Flow Rate		
IFO SERIES	55 - 4000 GPM	The **IFO Series** is constructed of an all stainless steel tubular frame which supports the screen. Its cylindrical drum is mounted horizontally on four shaft-mounted wheels. The drum rotates at 4-5 rpm and is driven by a top-mounted, TEFC motor, geardrive, stainless steel chain and sprocket. These internally-fed drum screens are typically applied to flume waters.	
IFS SERIES	105 - 6500 GPM	The **IFS Series** is constructed of an all stainless steel base. The IFS features a modular design, with components bolted to a heavy duty base structure. The screen cylinder can be wedgewire, perperforated plate or fine mesh. The cylinder rotates horizontally on four trunnion wheels and is driven by a TEFC gearmotor and corrosion resistant chain and sprocket arrangement.	
IFU SERIES	225 - 1940 GPM	The **IFU Series** is constructed of an all stainless steel frame. The cylindrical-shaped screening element can be wedgewire, perforated plate or mesh. The screen cylinder rotates on four UHMW trunnion wheels with sealed bearings and is driven by a TEFC motor, geardrive and corrosion-resistant chain and sprocket. It has a fixed spray bar for an automatically applied cleaning shower. A	

Proper screening is the first component to consider as part of an effective wastewater treatment system. FRC designs systems to take advantage of the low power consumption and small footprint of screens to protect and prolong more expensive downstream equipment's lifespan.

The internally fed rotary drum screens are available as flat-welded wedge wire or perforated plate with openings typically ranging from 0.010" (250 microns) to 0.1" (2,540 microns) depending on the application, flow rate, and the nature of the solids. Screen diameter can reach 80", with lengths up to 180" on a single screen. Our screens include a custom headbox design, splash guard enclosures, trunnion wheels, drive system, spray bar, auto chain oiler, and base frame.

Complete Screen Systems

Screen applications can be enhanced with auxiliary equipment such as:

- **Flow and level instrumentation**
- **Transfer pumps**
- **Buffer tanks (SS304 for screen mounting)**
- **Equalization tanks with pH control and mixing**

Materials of Construction

Our screens are constructed using high-end stainless steel, which is resistant to corrosion, can be installed indoors or outdoors, and is extremely durable and long lasting. Depending on the application, we can accommodate various alloys including Stainless Steel 316ti and Duplex Stainless Steel.

Deliberate Rotational Speed

Our rotary drum screens rotate at a deliberately slow rate. Other manufacturers rotate their screens around 10-12 RPM. We like to look at it as the slower, the better. At a slower rate, solids roll and tumble on the lower part of the drum for longer amounts of time before discharge, which maximizes solids dewatering. Because of the lower rotational velocity, our rotary drum screens need less water at a lower pressure to keep the screen clean. Most importantly: our sprays do not run all the time.

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Biological Treatment

Membrane Bioreactor (MBR)

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MBR systems produce high-quality effluent, save space, reduce sludge, offer operational flexibility, and are energy-efficient.

The FRC Membrane Bioreactor (MBR) system method uses submerged membranes rather than traditional clarification to remove bacteria solids in wastewater with biodegradable contaminants. This is done by letting bacteria grow in the wastewater to consume the contaminants, converting them to bacteria solids that can be more easily removed from the wastewater.

Directly Wasted Sludge

The MBR process yields clean effluent without the need for an additional solids removal. This allows the generated sludge to be wasted directly from an MBR tank, eliminating a unit operation.

Small Footprint

The membrane tank in an MBR system generally has a much smaller footprint than a traditional clarifier designed for a biological system of the same size or rate.

Materials of Construction

FRC's MBR systems can be installed in steel or concrete tanks.

High-quality effluent

The membranes in the MBR system are very effective at removing suspended solids from water, including biomass. As a result, the effluent from an MBR system results in a much lower suspended solids concentration than a traditional clarification method.

Effluents from MBR systems can be re-used as plant service water, or with some further treatment such as disinfection, can be re-used as potable water or directly discharged into the environment.

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Biological Treatment

Moving Bed Biofilm Reactor (MBBR)

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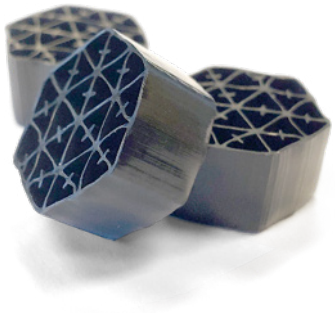
FRC Engineers use biological treatment to remove biodegradable contaminants from wastewater. MBBR technology enhances treatment capacity, minimizes head loss, and reduces sludge production.



The FRC Moving Bed Biofilm Reactor (MBBR) biological treatment method uses small pieces of carrier material which are designed to maximize surface area and promote biomass growth. The MBBR tank is filled with these carriers, typically 30-70% by volume. The tank is aerated to feed the biomass and circulate the carriers throughout the tank, hence the 'moving bed' description. The bacteria grow on the carriers and consume contaminants, converting them to more biomass which can then leave the tank and be separated with a Dissolved Air Flotation (DAF) system or another form of clarification.

An existing MBBR system can be upgraded for plant expansion by simply adding more media to the existing tank and introducing additional oxygen. This eliminates the need for a new tank.

High Biomass Concentration

The carrier media in the MBBR allows for a much higher biomass concentration than in a typical tank without media. This means that the system can be installed with a much smaller tank than a conventional biological system.

Completely Automated Systems

Since there is no balancing or additional processing required for the Return Activated Sludge (RAS), no additional intervention is required. This means no Mixed Liquid Suspended Solids (MLSS) analysis is needed. The FRC MBBR process gives a complete hands-off approach for the wastewater treatment system.

Design Flexibility

FRC's standard MBBR systems are installed in above-ground tanks made of durable stainless steel. We can also install the system in your existing concrete basin if it is sufficient in size.

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Rental Systems & Pilot Testing

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FRC has the largest wastewater equipment rental & pilot fleet in the US ranging from 10–3,000 gpm, we can tailor a solution to your needs.

Rentals are an excellent option for temporary shutdowns of the primary treatment systems as well as augmenting systems for additional capacity or permit compliance.

All FRC rental equipment is available for short-term and long-term rental agreements as well as pilot testing and long-term lease agreements.

System Options

- **Skid-mounted for quick set-up and operation or as standalone units to be connected to other on-site equipment.**
- **Available in flow ranges from 10-3000 gpm in dissolved air, nitrogen, or gas configurations.**
- **FRC Engineers will work with you to make sure your rental is outfitted for your application needs.**

Rental Applications

- **Emergency situations where permit limits are being exceeded.**
- **Equipment goes down for maintenance and a short-term solution is required.**
- **Delays in wastewater plant construction at effluent producing facilities.**
- **Existing system needs to be replaced and treatment is required during the change-over.**
- **Short-term or temporary operations**

Engineering Support Team

FRC has a full team of field, process, and pilot engineers to support the start-up of the rental systems, and of course remote field support. Available services include the following:

- **Installation inspection prior to commissioning**
- **Commissioning and start-up**
- **Operators training**
- **Remote support**

Available Systems include:

- **Stand-alone DAF systems for applications greater than 100 GPM including flocculators & chemical dosing systems.**
- **DAF System for applications less than 100 GPM**
- **Dissolved Gas Flotation (DGF)**
- **Corrugated Plate Interceptor (CPI)**
- **Sludge Dewatering Belt Filter Press**
- **Sludge Dewatering Multi-Disc Screw Press**
- **Rotary Drum Screens**

For a full list of available rental equipment, please visit:
www.frcsystems.com/rentals

Spare Parts

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Keeping spare parts for a DAF system reduces downtime, supports reliable operation, and prevents unexpected delays.

At FRC Systems, we know that spare parts are an absolutely vital part of the wastewater treatment plant. Having them readily available allows for proper spare parts management, which in turn keeps the wastewater treatment system running at peak performance.

FRC has spare parts to support all our products. We are also able to quickly supply many replacement parts for our leading competitors equipment.

DAF Spare Parts

- **Auger drives**
- **Drain valves**
- **Pneumatic panel valves**
- **Flow meters**
- **Filter regulators**
- **Recycle pumps**
- **Skimmer sprockets, bearings, chain, hinge pins, blades and motors**

Belt Press Spare Parts

- **Cog wheels**
- **Filter belts**
- **Gaskets and scraper blades**
- **Steering valves**

Rotary Drum Spare Parts

- **Chain**
- **Drive Sprockets**
- **Pillow block bearings**
- **Trunnion wheels**

CPI Spare Parts

- **Auger drives**
- **Drain valves**
- **Plate packs**
- **Skimmer sprockets, bearings, chain, hinge pins, and motors**

System Upgrades

SCADA, Pumps & Aeration

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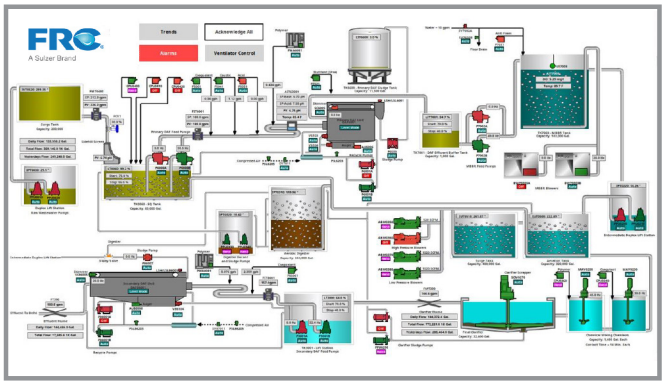
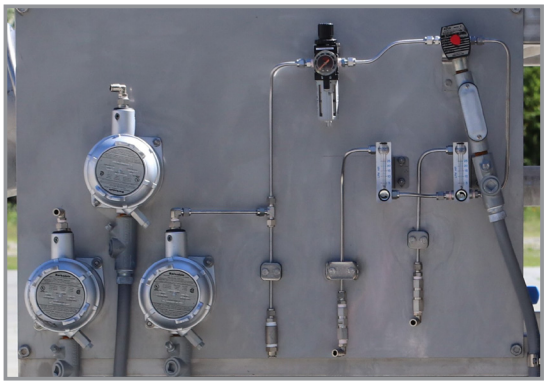
At FRC, we are always working to improve the performance of wastewater treatment systems. We can upgrade or refurbish existing FRC systems as well as those from other manufacturers.





Some of these upgrades are designed to prolong the life of current systems by repairing components that have experienced wear-and-tear over the course of time. Others, like aeration and controls upgrades can be used to enhance and improve the performance of your treatment system.

Aeration Upgrade

The aeration of a DAF is the heart and soul of the system. Our simple design works so well that we're constantly retrofitting competitors' DAFs with our upgraded aeration system. FRC is completely brand-agnostic with regards to the model of recycle pump used on our DAF.

- **Recycle Pump**
  FRC 's design uses the recycle pump to pump water, not dissolve air. That means these recycle pumps are much less costly than a specialty whitewater pump. This allows you to choose the pump material of construction based on the needs of your environment.
- **Air Dissolving Tube**
  An air dissolving tube is used to generate white water in our aeration system. This short expansion and angled configuration allows for increased water and air interface, so saturation occurs almost instantly.
- **Pneumatic Panel**
  The pneumatic panel design for each DAF contains safety features to protect the recycle pumps and is also used to avoid discharging untreated wastewater as a process control measure.

Electrical Panel Upgrade

Over the course of time, existing panels may become unreliable or may no longer be capable of sufficient automation, forcing unnecessary operator intervention. We know that is not acceptable in today's demanding production environments. In addition to our standard panel offerings, FRC can provide additional features for SCADA and plant integration.

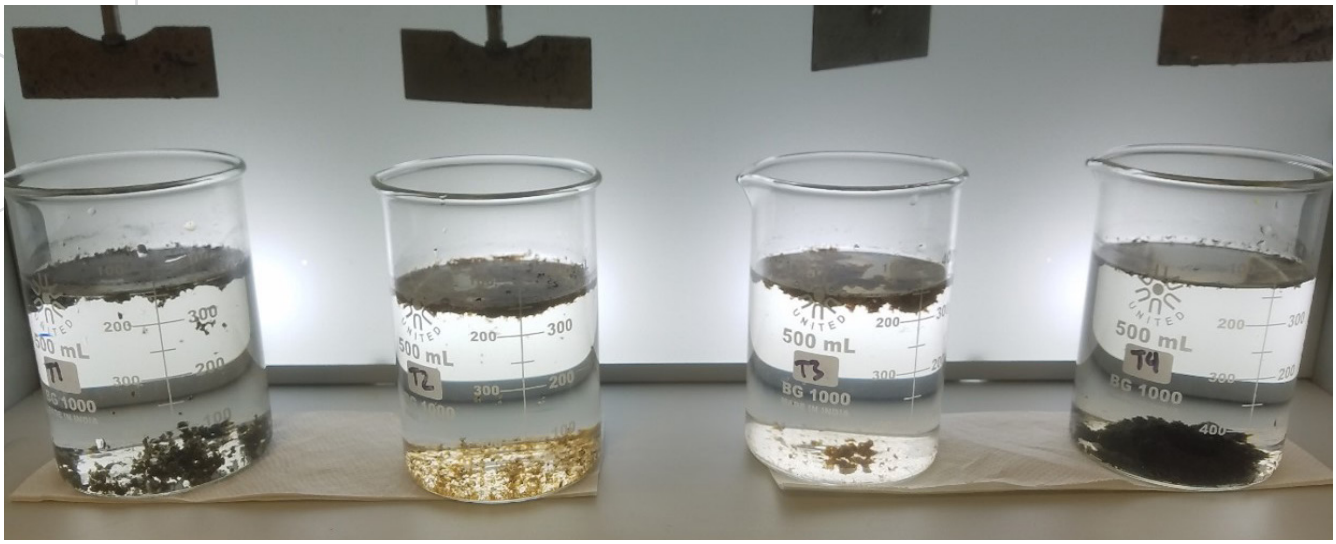
- **Engineering Know How**
  FRC has a dedicated mechanical and electrical project team to design the electrical control panels for our systems in-house. Our expertise and familiarity with the equipment provides a solid know how of how the system operates. Time is money and we have the experience to minimize and even eliminate downtown during the upgrade.
- **Plant Integration**
  Our panels can be upgraded to include Supervisory Control and Data Acquisition (SCADA) to trend and store data for the analysis sought after in today's information driven facilities. FRC can customize your panel to allow for integration with Distributed Control System (DCS), centralized data historian, and remote monitoring solutions to deliver access to data anywhere and anytime.

Services

Jar Testing

A Sulzer Brand

The labs at FRC Systems are capable of testing and recommending the proper pretreatment chemicals.



Based on the jar test results, FRC can recommend the proper pretreatment chemicals to discuss with your chemical supplier. The coagulants will be selected based on the application, wastewater characteristics, and sludge disposal options.

A FRC Systems jar test provides a simple and effective qualitative test in which we add various coagulant and/or flocculant chemicals to your wastewater samples in order to determine a combination that results in effective solids removal with dissolved air flotation (DAF) treatment. We also offer optional analytic testing for both treated and untreated samples, including Total Suspended Solids (TSS), Fats, Oils & Grease (FOG), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), and many others.

Coagulation

This is a purely chemical process which involves the destabilization of colloidal particles forming micro-flocs with a positive charge. We are determining how quickly micro-flocs can be formed to select the proper FRC product selection. During this step, we can determine a preliminary dosing recommendation.

Flocculation

The flocculant is a polymer that attracts the opposite charged micro flocs, and agglomerates the micro flocs into larger “macro flocs”. This is done in order to achieve a size suitable for separation in the flotation cell. Polymers can be an anionic, cationic, or nonionic.

DAF Simulation

In this step we generate whitewater by pressurizing water in a dedicated vessel. We inject the generated whitewater into the waste water sample to observe how the dissolved air interacts with the previously formed macro-flocs.

Sludge Testing

We also offer sludge testing which involves applying pressure to evaluate the behavior of the sludge. This allows FRC to recommend the proper dewatering technology.

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Your Trusted Wastewater Solutions Provider

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