Equipment Plus Solutions, Inc.

SERVING FLORIDA'S WATER & WASTEWATER INDUSTRY SINCE 1987

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- Integrity is a Choice.
- Our Business is Built Upon Relationships

Inside this Issue:

Required Effluent Phosphorus levels <0.010 mg/l?

Utilities throughout the State of Florida have begun to deal with the implementation of the numeric nutrient criteria.

BLUE WATER TECHNOLOGIES offers tertiary filtration options which can be added to the tail end of existing treatment plant processes for denitrification as well as phosphorus reduction.

BLUE WATER TECHNOLOGIES **Blue NITE®** filtration system is used for denitrification (<1 mg/L NO3-N) and the **Blue PRO®** filtration system is designed to meet stringent phosphorus reduction requirements.

BLUE WATER TECHNOLOGIES provides a key advantage by being able to accomplish both denitrification and phosphorus reduction in a single filtration system if reduction of both is needed.

The **Blue PRO®** tertiary filtration system consists of continuous backwash upflow filters using hydrous ferric oxide (HFO) coated media for adsorption of phosphorus.

A hydrous ferric oxide (HFO) coating is formed on the filter media surface allowing adsorption of phosphorus. The coating is then abraded away within the filter and the media is continuously regenerated within the moving bed filter.

Through a multiple pass approach, **Blue PRO®** is able to achieve total phosphorus levels <0.010 mg/L.

SyncroFlo

PUMPING SYSTEM SOLUTIONS – SINCE 1962

SyncroFlo has been providing pre-engineered, skid mounted pumping systems since 1962 with over 20,000 systems shipped and installed worldwide.

SyncroFlo manufacturers high service pump stations, potable water booster pump stations, plant water pumping systems, and effluent reuse pump stations for the municipal marketplace.

Controls, as well as the entire system, are built to customer specifications with complete unit responsibility resting with **SyncroFlo.**

SyncroFlo offers a broad selection of optional buildings when desired.

SyncroFlo offers full engineering support during design.

DUPERON® FlexRake® — Mechanical Barscreen

The **DUPERON® FlexRake®** is a proven mechanical barscreen with installations in major wastewater facilities throughout the United States.

It is available with typical bar spacing ranging from 1/4"—4". The unique, heavy duty **FlexLink®** construction eliminates the need for lower sprockets and bearings and is capable of lifting up to 1,000 lbs. Multiple barscreen rakes can be provided every 21" for high-volume debris applications. Rakes provide full penetration efficiently cleaning three sides of the barscreen; i.e., the surface and the entire depth of the spacing between both sides of the bars.

The **FlexRake®** is available in 304, 316 and 316 L construction with enclosures for odor control. Enclosures are provided with full service hatches for inspection and O&M access.

The **FlexRake®** is standard with two speed VFD operation which can be run manually or automatically using feedback from level sensors.

DUPERON® provides a full complement of equipment from the **FlexRake®** to conveyors for screenings and washer compactors.

When choosing **DUPERON®**, you benefit from over 20 years of industry experience along with a 5-Year-Warranty.

Call us if you would like to arrange a visit to see a local Florida installation.

HALLSTEN—Aluminum Tank Covers

HALLSTEN CORPORATION provides flat aluminum tank covers for water and wastewater treatment plant process tankage.

Standard covers are designed for a live load of 50 lbs/square foot of surface area and the structural components are designed for a load of 400 lbs on a 6"x6" area. Thus, **HALLSTEN** covers provide a walking surface for day-to-day access by plant personnel.

HALLSTEN covers are substantially air tight and are typically installed with an odor control system.

HALLSTEN CORPORATION provides and installs their covers using certified factory crews to assure proper installation and compliance with local hurricane wind load standards in Florida.

Prior to manufacture, survey crews from the factory come to the jobsite and obtain the actual field dimensions for the cover system. These dimensions are used to release the covers to fabrication. Ultimately, **HALLSTEN** crews are responsible for the integrity of the cover fit and installation.

HALLSTEN CORPORATION offers extensive experience in the State of Florida with installations and references throughout the state.

EVOQUA WATER TECHNOLOGIES—Odor Control Systems

Evoqua Water Technologies maintains the position as an industry leader with a high level of professional support before and after the sale.

The odor control group has a product offering—from small odor control systems with air flows as low as 35 to 50 CFM—to large air flows as high as 20,000 to 30,000 CFM.

Science shows that wet air scrubbing continues to be the most flexible and reliable treatment of odors released into the atmosphere when complete odor control is required.

At the same time, biofilters and biotrickling filters are very popular due to their ability to biologically reduce odorous compounds effectively and economically.

Carbon adsorption can still be an effective way to adsorb odorous VOCs when they are present at very low levels.

The vapor phase odor control team at **Evoqua Water Technologies** continues to offer the full range of treatment options and technologies. One technology does not fit all applications.

Please give us a call and let us assist you with comparing technologies so you can find the right solution for your particular application

STORMWATER NUTRIENT REDUCTION

The *alum precipitation process* is commonly being used to reduce nutrients in stormwater applications throughout Florida.

With the new focus upon the Numeric Nutrient Criteria, more stormwater/nutrient treatment systems are entering the planning stage.

As nutrient laden surface water enters these treatment facilities, alum is injected, which combines with the pollutants in the water and settles to the bottom of the lagoons.

The settled alum sludge then needs to be periodically removed to make way for additional treatment volume within the lagoons or ponds.

SRS CRISAFULLI manufactures an unmanned mini dredge which can be used to remove the alum sludge from the bottom of the lagoons .

The dredge is set up using traversing cables which span across the pond.

Controls are located near the pond, allowing the operator to maneuver and control the dredge from the shoreline.

SRS CRISAFULLI also offers a radio controlled option. (Lawn chairs and sun shades for this approach are optional!)

SRS CRISAFULLI'S FLUMP™ dredges are being used in Lake County as well as Hillsborough County to remove alum sludges at

FWEA AIR QUALITY COMMITTEE UPDATE

The **FWEA AIR QUALITY COMMITTEE** held their annual workshop in Boynton Beach in February. The City of Boynton Beach hosted this year's event at the **Intercoastal Park Conference Center**.

The workshop was well attended by utility personnel and consultants from throughout the State of Florida.

Technical presentations were provided by a nationally acclaimed group of consultants in the odor control field.

Technical sessions were followed by afternoon visits to see odor control systems in the Boynton Beach area.

The event was a continued education workshop providing CEUs and PDH credits for those in attendance.

Please watch the **AIR QUALITY COMMITTEE** link on the FWEA website for upcoming news on the dates and location of the next workshop.

Also, the City of St. Petersburg's Southwest Water Reclamation Facility is the recipient of the 2016 FWEA **Environmental Stewardship Award for Odor Control.** This award is presented annually at the Florida Water Resources Conference.

DUPERON® — Stormwater TrashRakes

The **DUPERON® FlexRake®** is engineered to be strong to handle the rigors of Florida's stormwater debris removal applications.

This is a proven and reliable screening system with over 500 installations. Over 95 of these installations are within the South Florida Water Management District.

With the **FlexRake®** technology, there are no lower sprockets, tracks, or bearings under the water to lubricate or repair, eliminating the need for underwater repair or maintenance.

The front-cleaning front return design of the **DUPERON® FlexRake®** eliminates carryover making it ideal for stormwater and flood control applications.

The **DUPERON® FlexRake®** is available from 2 feet to 12 feet wide and up to 100 feet long with a 1,000 lb. to 3,000 lb. lifting capacity.

FlexRakes® are specially engineered for open channel applications where debris size and velocity may be unpredictable. They have proven their versatility over the years by handling everything from general refuse, aquatic vegetation, tree limbs, lumber, tires, oil drums and even automobile frames.

The low operating speed as well as the ability of the rake to flex and pivot around objects ensures minimal impact on the ecosystems into which it is placed.

The **FlexRake®** is certified as Manatee-Safe in sensitive

Visit us on the web at:

www.equipmentplusinc.com

EQUIPMENT PLUS SOLUTIONS, INC.

P.O. Box 2908
Belleview, Florida 34421-2908

PH: 352.237.1869
FX: 877.792.8356

We value your consideration of
EQUIPMENT PLUS SOLUTIONS, INC.
and welcome the opportunity to be of service to you.

Please take a moment and visit our web site. You'll find direct links to the companies we represent as well as information and links to our offices.

We stand ready to assist you—we're just a phone call or an email away.

FINE SCREENING / PRIMARY TREATMENT FOR WASTEWATER INFLUENT

The **Eco MAT™** is a self-contained rotating belt pretreatment system used to filter influent raw sewage.

Performance of the unit mimics a primary clarifier while only requiring 10% of the space.

The **Eco MAT™** can feed the removed TSS and BOD to an anaerobic digester in a thickened liquid form, or it can convert the removed TSS, FOG, and BOD_5 to a 25-40% solids cake which is typically disposed of with pre-screenings.

The **Eco MAT™** provides the added benefit of ultra fine screening.

It can be used to enhance MBR performance long term by controlling plant loading and removal of fine particles such as human hair.

This system is provided as a complete, self contained unit in a 316 SS vessel which is ready to be set in place and connected.

Industrial applications which are subjected to sewer discharge surcharges due to excessive TSS and BOD levels can especially benefit from the usage of this unit. When surcharges are involved, a return on investment can be easily calculated to show you how the **Eco MAT™** can actually pay for itself.

Additional information related to the **Eco MAT™** is available on the **BLUE WATER TECHNOLOGIES** website.

Find the link to

BLUE WATER TECHNOLOGIES

on our website listed above

BLUE WATER TECHNOLOGIES

Eco MAT™ pilot systems are available.