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Pre-Engineered Wastewater Systems Reduce Installation, Treatment Costs

By Ed Wodalski | Product Spotlight | November 2015 |
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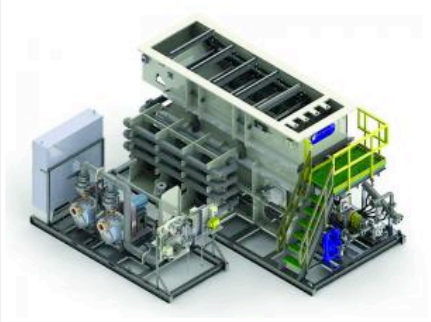
The Ideal Pre-Fab line of pre-engineered wastewater treatment systems from World Water Works (WWW) are designed for permanent industrial applications.
"For many industrial facilities, wastewater is a necessary evil, especially in the food and beverage industry," says Mark Fosshage, founder and president, World Water Works. "Clients want to minimize risks and costs associated with it as much as possible."



Ideal Pre-Fab from World Water Works

Because of the strength of wastewater, many municipalities either can't accept it as is or have to charge more for treatment. This typically means clients must install pretreatment systems.

"The problem is this becomes a major capital project with engineers, contractors and many vendors involved," Fosshage says. "Schedule, cost, time, risk and responsibility make this a difficult process. WWW introduced the Ideal Pre-Fab technology to minimize the problems."

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Systems are shipped pre-wired and pre-plumbed, requiring basic tie-ins.

"We dramatically cut the time and on-site costs, while absorbing much of the risk," he says.

Available for equalization, dissolved air flotation, moving bed biofilm reactor and S-Select bulking sludge management technology, the skid-mounted systems have a capacity of 5 to 1,000 gpm or 7,200 to 1.4 million gpd.

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Both a physical/chemical and biological process can be used to treat the concentrated wastewater. Systems can remove suspended solids (TSS), fats, oils and grease, phosphorus, ammonia, biochemical oxygen demand (BOD) and chemical oxygen demand. Each unit can be custom-engineered to meet specific needs, achieving up to 99 percent TSS and BOD removal.

"Our technologies are designed to handle a broad range of impurity concentrations," Fosshage says of the treatment systems that feature welded polypropylene rather than stainless steel or epoxy-coated steel. "In the aggressive wastewater applications we deal with, welded polypropylene gives us a lot of flexibility in how we treat the water, reducing total life cycle costs."

Wastewater enters an equalization tank and is pH conditioned. A physical/chemical separation process adds pressurized atmospheric air.

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"When we release the air it comes out as a very fine microbubble, almost like the froth in a beer that captures and floats the solids," Fosshage says.
The filtered waste is skimmed off, and the clean water is removed and discharged to a municipal sewer.

"Essentially what we're trying to do is take the wastewater that is being generated and reduce it to concentrations that are equivalent to that of household sewage," he says. "That is still not clean, but compared to what comes out of some of these facilities it's about 90 percent less."

800/607-7973; www.worldwaterworks.com.