



Municipal Wastewater Fine Screen:

Municipal wastewater MBR screening with Externally Fed Rotary technology.
 Stuart Ward of *Process Engineered Water Equipment, LLC* explains water screen design...

Case Study

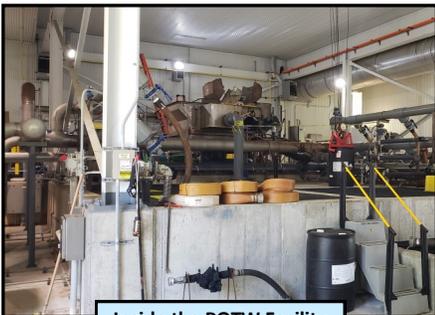
In June 2015 PEWE received a call from our Municipal Representative, TG Rankin in Chesterfield, MO. They had a challenging municipal application that had been causing a lot of consternation, extra work and maintenance headaches for a client. It turned out the client, Duckett Creek Sanitary District in O'Fallon, MO had been fighting an MBR pre-screening battle and losing. According to Keith



Wyndgate POTW

Arbuckle PE they had been through several screens of differing design without success. They now were wanting a new concept using an externally-fed rotary drum design, and soon!

The MBR treatment facility was located at a relatively remote location right in the middle of a new and up-scale housing development. They had even gone so far as to build the WWTP in a full Colonial house. Neighbors live directly adjacent to this facility. PEWE was non-plussed and accepted the challenge as PEWE offers multiple models of screening systems. The requested screen was for a hydraulic flow capacity of 0.43mgd or 300gpm per screen with a duplex layout, for a total surge capacity of 0.86mgd or 600gpm.



Inside the POTW Facility

Selected Screen System

Specific features of the **SuperSkreen™ SSE** design are the auto spray cleaning feature and the finely radiused rotary wedgewire screen. This is a durable mechanical filter system suitable for remote locations.



SuperSkreen SSE

With an adjustable blade the headworks screen has minimal maintenance needs and low wear. The stainless steel headworks fine screen will last for years in the harsh environment it is exposed to.

The **SuperSkreen™ SSE** is an in-house engineered technology built on the fine finish craftsmanship of the PEWE shop fabrication and welding personnel. Their careful attention to work yields quality screens. The fine screen features stainless steel optional enclosure cover and has non-slip spark free lift handles. The PEWE **SuperSkreen™ SSE** has always been completely manufactured in the U.S.A.

Rotary Results

Duckett Creek Sanitary District ultimately ordered three **SuperSkreen™ SSE** units, intending to install the third at another location. PEWE shipped the municipal headworks screen for delivery in record time. The Duckett Creek crew had the screens installed and the wastewater facility up and running soon after the screens were on-site. At start-up the fine screen system readily filtered the sanitary wastewater through the wedgewire. The filtrate then flows directly to the basin below. Solids slide off the wedgewire, into a waiting auger. The



Wedgewire Satisfaction

solids are then carried over to a receiving bin, a repurposed old screen basin used as a receptacle. The facility personnel are very satisfied with the new PEWE **SuperSkreen™ SSE**. Happily several of the plastic toy items, which were past problems and now removed in the headworks, adorn the unit as mascots.



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