

# Wastewater Treatment: Efficient Filtration leads to water savings

Pretreatment in the food industry can provide sustainable water cost savings. Stuart Ward of *Process Engineered Water Equipment, LLC* explains efficient filtration is key...

## Case Study

Columbus Salame, South San Francisco CA was established in 1934 to manufacture select quality deli meat to serve area



HD² XLRator LS-175

clientele. Production processing increased dramatically as the company flourished. In 1987 the first wastewater pretreatment plant was installed to meet city discharge requirements. Treatment was variable with modest results. The company continued to grow and in 2008 found it necessary to replace the aging, overrun inefficient system. Sewer surcharges were in excess of \$500k.

## Sustainable Design

The old system had several short-comings which needed to be addressed to achieve better treatment. The side-hill screen system was non-functional and a maintenance headache. There was no EQ balancing, no aeration existed, chemical



SuperSkreen EFS-2524

dosing was done with undiluted polymer and the carbon steel DAF vessel was badly corroded. Space for the new treatment system was limited to 10'x20' area.

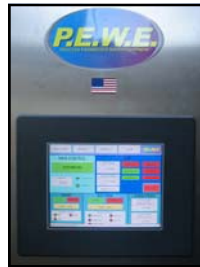
It was determined that with careful use of valuable space, a complete "green" wastewater treatment plant upgrade was possible. The new system entailed a PEWE externally fed rotary PEWE *SuperSkreen*, EQ balance tank, flow proportional feed, a PEWE *PolyAccu Dose* chemical make-down unit, a stainless steel PEWE *HD² XLRator* DAF unit



PolyAccu Dose PDC-10

complete with modern Rogue MAX RGT regenerative turbine aeration.

As a bonus operators gained and total over the efficient with *Command PLC*



backups and bypasses.

the operators complete control new system PEWE *Control* alarms,

## Final Results

Upon start-up the new wastewater pretreatment system immediately achieved the desired results. Reductions exceeded 75% for TSS, BOD 65% and FOG by 95%+. The new screening automatically captured large insoluble solids, wood and plastic protecting downstream equipment. The flow proportional chemical system efficiently dosed the proper amount. The stainless steel PEWE *HD² XLRator* DAF was dream to keep clean.



Columbus Salame is very satisfied with their new wastewater treatment system. Sustainable discharge surcharges to the city have been reduced over \$250,000+ annually.



Jack Lohre, Maintenance Manager  
Tony Hamedany, Facilities Manager



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