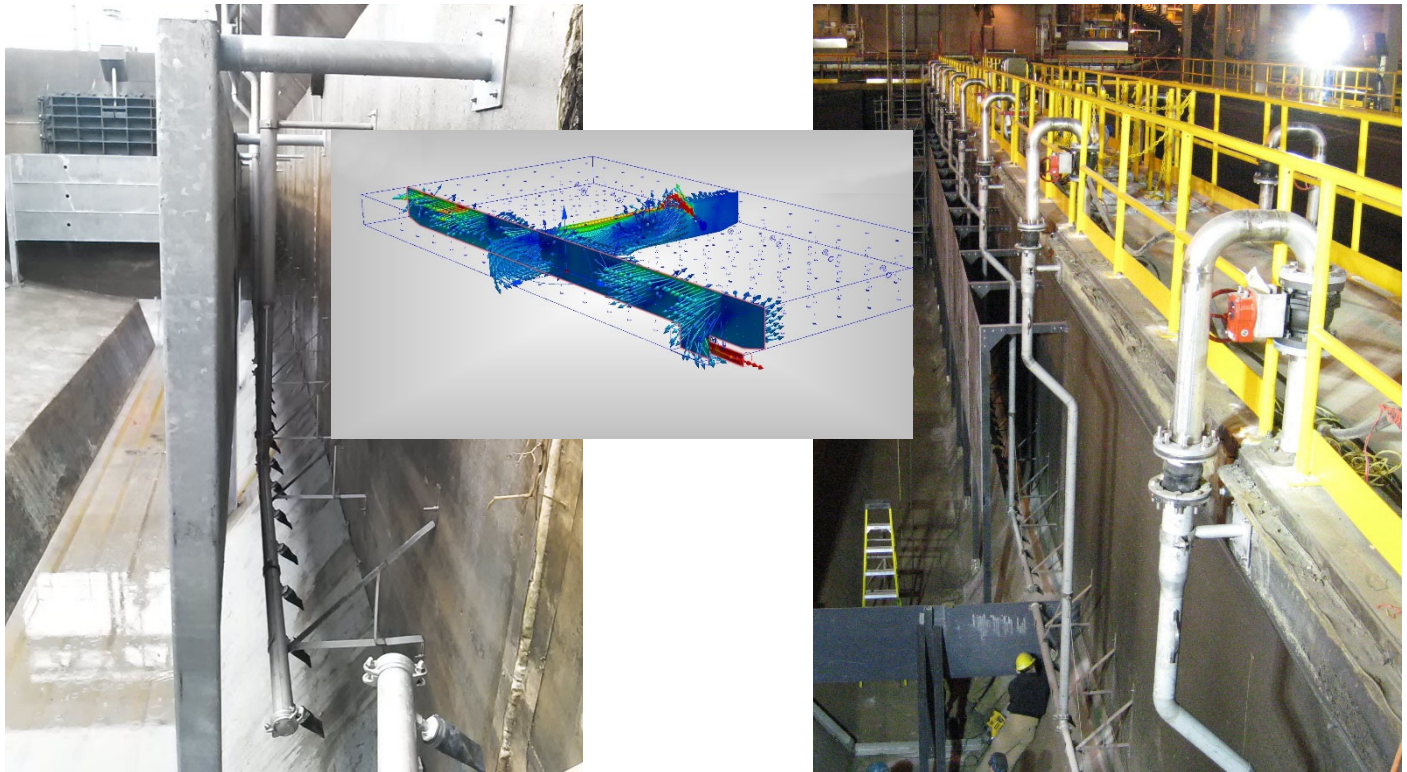


## **AERATED GRIT TANK MIXING SYSTEMS**

### ***“Implementing Current CFD Design Recommended Improvements To increase the Removal Efficiency of the Process”***

Grit removal structures are being modified to improve the grit removal efficiency. Grit removal structures are also grit washing processes. Both washing and removal of grit should be optimized in any removal process. Computational Fluid Dynamics Modeling (CFD) has identified structural modifications to improve removal efficiencies as well as identify aspects that inhibit washing and removal. The performance of Tideflex Systems were applied in the CFD modeling by independent engineering firms. These models produced an optimized design for grit tank design and the applied Tideflex Mixing System.

The Tideflex diffusers are basically indestructible, making them the perfect product for this high rate mixing system containing highly abrasive particles. Tideflex engineering can recommend design modifications for baffle locations, entrance and exit configurations, and air mixing system sizing for your aerated grit tank application. Tideflex has also evaluated the entrance zones to the grit tanks and can provide supplemental mixing systems that further increase the removal efficiency of these processes. Tideflex Technologies is the only manufacturer incorporating their system design with CFD modeling for these applications.



*Tideflex Technologies / Red Valve Company holds the patent for elastomer duckbill diffusers and their incorporation into a multiport diffuser piping system. Any suppliers of systems incorporating duckbill diffusers would need authorization from Tideflex Technologies / Red Valve Company. Soliciting of systems incorporating Tideflex diffusers by others without the consent of Tideflex Technologies constitutes intent to violate the patent protection of this product and is subject to the penalties defined within the Patent Protection Laws of the United States.*

*US Patent No. 6,016,839 / 6,193,220 / 6,372,140 / 6,702,263  
Canada Patent No. 2,366,252 / 2,385,902; United Kingdom Patent No. 2,326,603*