

MIXTEC
FOR MIXING TECHNOLOGY



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WASTEWATER AND WATER TREATMENT PLANT MIXERS



Mixtec Flocculation Mixers at Westport Water Treatment Plant

Mixers for Wastewater & Water Treatment

Mixers are used in various stages of wastewater and water treatment for different applications. Here at Mixtec - Western Engineering we have been supplying mixers for municipal and industrial wastewater and water treatment for many years.

Western Engineering has manufactured Mixtec mixers for a vast array of WWT & WT applications including chemical additions, coagulation, flocculation, DAF sludge suspension, anoxic and anaerobic treatment, polymer make up and aging, PAC mixing, lime slurry suspension, tradewaste solids suspension, DAF sludge tanks, etc.



Mixtec Sludge Mixers in a Wastewater Treatment Plant

Efficient and total mixing in WWT & WT applications is critical to ensure the effectiveness of the process and to minimise the use of additives.

A couple of examples;

LIME SLURRY

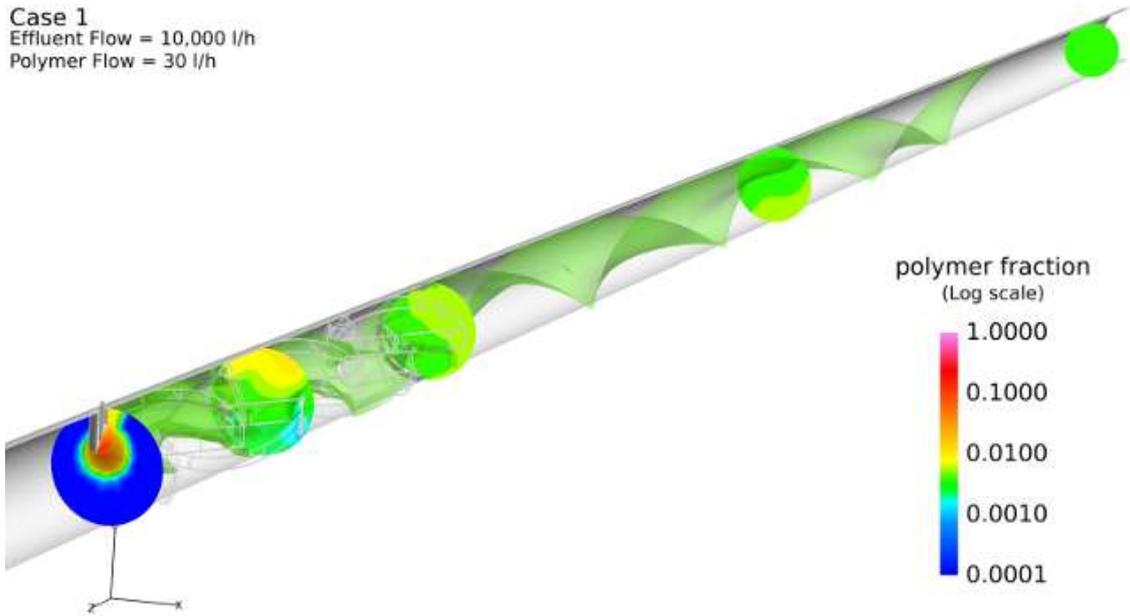
If a lime slurry is being used for pH control it is essential to have a 100% uniform slurry to ensure efficient and consistent performance in subsequent downstream processes. To create a uniform lime slurry the mixer needs to generate a flow pattern in the entire tank which has a sufficient superficial velocity to completely suspend all the solids present into a totally homogenous solution.

FLOCCULATION

Flocculation is a process that separates solids suspended in water. For it to work successfully, micro-flocs have to attach themselves to impurities in the water and then join together to form large visible agglomerates known as macro-flocs. The challenge is that floc particles are very sensitive, they must be agitated in such a way that allows them to collide, and bind, with each other. To achieve this, a mixer which creates a gentle, axial flow pattern that generates low shear over a large area of influence is required.

Therefore it is critical that mixers are correctly engineered to produce and maintain the desired result for the given application.

Case 1
Effluent Flow = 10,000 l/h
Polymer Flow = 30 l/h



CFD Analysis of a Mixtec Instamix 'D' Element Static Mixer

Backed by years of experience in this field, Mixtec-Western Engineering understand the requirements of mixers used in WWT & WT plants. Please contact us for your WWT & WT mixing, blending and agitation requirements.



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