

LAGOON DISPERSION & MIXING SYSTEMS

“Eliminate Short Circuiting of the Influent and Enhance Mixing to Optimize Lagoon Treatment Processes”

Lagoons are inherently susceptible to short circuiting of the influent due to low velocities, density and temperature differentials, and lagoon geometries. With limited inlet mixing a lagoon process can operate well below its capacity due to the development of concentrated plumes and stratification of the inlet flow and the water within the lagoon.

Multi-port distribution and velocity enhancement of the inlet flow will eliminate short circuiting potential as well as achieving a homogeneous blend between the inlet flow and the receiving water body within the first zone of the lagoon. Mixing within the immediate near-field of the discharge point produces a combined median temperature further reducing the potential for stratification and surface layer short circuiting.



Utilizing Tideflex inlet diffuser nozzles provides enhanced velocity and also serves as a backflow prevention device to prevent bio-growth from occurring within the distribution manifold. Tideflex Technology can provide the complete Hydrodynamic Mixing Design modeling, manifold distribution design and the complete distribution manifold with nozzles ready for installation. HDPE manifolds provide long service life and durability and can be installed within new and existing lagoon systems.

Unique Performance Features

- Eliminates Short Circuiting Problems
- Provides Enhanced Mixing in the Near Field
- Prevents Backflow into Manifold Piping
- Eliminates the need for Baffles or Curtains

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*