Raptor™: Directional Aerating Mixer

Save on Energy, Drive More Oxygen, Reclaim Your Lagoon Volume

Before

After

Superior Impeller-Driven Process Solution for Environmental Compliance
Raptor Directional Aeration and Mixing System

**SEVERE DUTY RATED MOTOR**
IEEE-841 rated motor built to withstand harsh conditions.

**SUPERIOR DIRECTIONAL AERATION/MIXING**
Combination of impeller and Raptor design results in up to 50% less energy consumption.

**FIXED SHIELD**
Prevents vortex formation and cavitation.

**DUAL OPERATING MODES**
Nitrification to provide aeration and mixing. De-Nitrification for BNR capability.

**ADJUSTABLE OPERATING ANGLES**
Configure to help regulate suspension of targeted solids and maintain TSS compliance.

**PATENTED AIR WING™ SPARGER**
Maximizes control of gas volume, pressure, dwell time and minimizes airflow/volume losses.

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**SUBSURFACE MIXING**
- Reduces/controls surface foam and prevents/controls bottom sedimentation.
- Combination of impeller and Raptor design results in up to 50% less energy consumption.
- Reduces energy costs by facilitating more oxygen transfer per horsepower hour than high speed surface aerators.
- Provides option to increase oxygen transfer using the same horsepower or match oxygen transfer using less horsepower.
- Helps to maintain environmental compliance and avoid BOD and TSS related fines.
- Controls or eliminates targeted deposition to avoid dredging.
- Controls or eliminates foam without spending money on chemicals.
- Easier to maintain than high-speed vertical mixers.

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Philadelphia Mixing Solutions and its subsidiary, Mixing Solutions, operate one of the world’s largest and most comprehensive mixing laboratories dedicated to agitation and aeration process optimization. With over 60 years experience, Philadelphia Mixing Solutions continues to be a leader and innovator in the design and manufacture of agitation and aeration equipment.

Philadelphia Mixing Solutions serves industries that value superior operational performance and reliability. Philadelphia Mixing Solutions has expanded its reach internationally to provide products, technical services and field support to customers around the world.

Our mixing process experts can build the right solution for your unique mixing requirements to:

• Partner with you on projects to meet your unique needs
• Model mixing outcomes using the latest technology in mixing diagnostics
• Provide superior blending for reduced power consumption
• Design equipment for mechanical reliability and operational durability
• Provide follow-up support to ensure system success for your business
• Reduce maintenance costs and increase operating uptime
• Improve operating efficiency and finished product quality
• ISO 9001:2008