MUSTANG extreme
environmental services

WATER MANAGEMENT

Subsurface Aeration

COST-EFFECTIVE, LOW-MAINTENANCE WATER MANAGEMENT

The Mustang Extreme subsurface aeration system is designed to help operations improve the longevity of water quality through automated, low maintenance site management.

Subsurface Aeration - How It Works

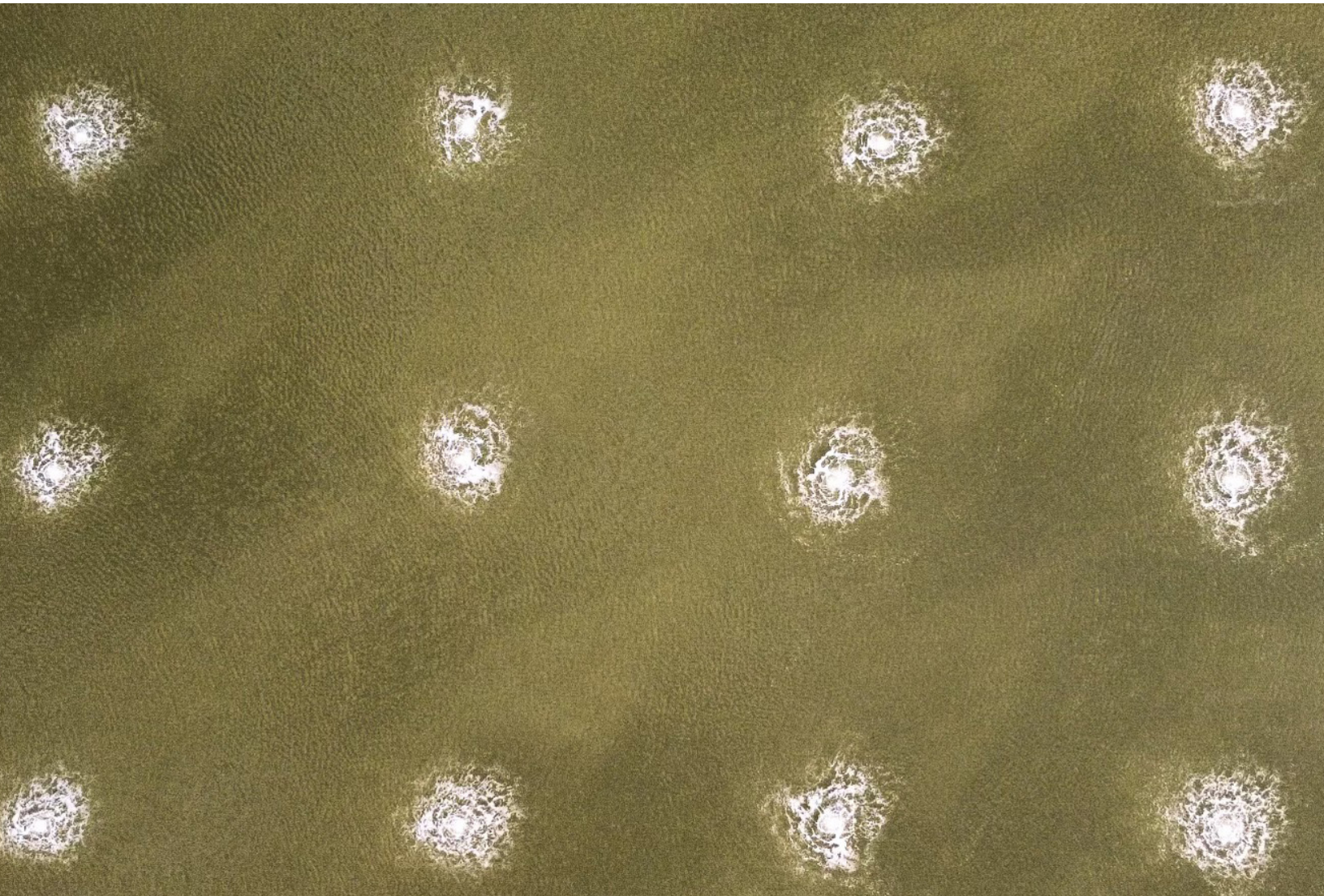
Subsurface Aeration creates circulation throughout the pond, which increases the dissolved oxygen (DO) super-saturation at the air discharge point and diffuses throughout the water creating a stirring effect. Oxygen saturation is increased, which introduces oxygen at the lowest point in the pond. Acting as an oxidant, circulated oxygen helps aid in regulating bacteria levels and improving water quality.

Prevent costly problems resulting from insufficient subsurface aeration, including:

- A septic pond due to bacteria growth, which is caused by lack of air flow and circulation in the water
- Reduction in uniformity of the air introduction process due to increased buoyancy and equipment shifting within the pit
- Increased scaling tendencies due to high salt content, which requires frequent cleanings

Control H2S and Solids Build Up

- Dissolved Oxygen (DO) acts as a mild oxidizer that helps reduce bacteria and sulfides that may be in the water
- Creates an oxygen rich environment to control sulfate reducing bacteria (SRB)
- Prevents dangerous levels of Hydrogen Sulfide buildup
- Provides complete de-stratification of water layers



THE IMPORTANCE OF PROPER INSTALLATION

Mustang Extreme ensures every job is done right the first time, preventing costly corrections post-fill. We spec what science and your installation dictate, then custom design a system to meet the specific water quality levels of your operation.

- Installation in dry pits is highly recommended for increased safety and cost-efficiency
- If installing a system in a pit already filled with water, the water will be tested for toxicity and, if necessary, treated to protect the health and safety of crews prior to any work

Aeration System Components

Mustang Extreme's standard setup includes bases with quad diffuser pads, blowers, and weighted tubing

- Diffuser bases are made of High Density Polyethylene (HDPE) and PVC
- Smooth-edged components prevent damage to liners
- Bases can be filled with concrete to ensure they stay in place and do not shift

Why Blower Horsepower Matters

Many installers do not install enough horsepower or diffusers for the size of the pit, which then requires an extreme amount of equipment on site. Without the right amount of CFM, circulation and movement of the water is very limited. Mustang Extreme recommends a 23 HP blower, which is capable of 360 CFM at a depth of 18 ft.

NO ONE DOES IT BETTER THAN MUSTANG EXTREME

Best Practices for Subsurface Aeration and Proper System Configuration

- The number of diffusers and blowers needed to maintain optimal airflow is determined by the dimensions and depth of the pit
- Max distance between diffusers should be no more than 75 ft
- All moving parts with potential maintenance criteria should be installed outside the pit for access without disruption to operations
- Aeration bases need to be built up 12 in off the pond floor to be clear of contaminant buildup
- Ideally, lines should be trenched and buried below the surface of the berm to prevent damage and remain unharmed

Environmental Benefits

- Prevents dangerous levels of Hydrogen Sulfide buildup
- Reduces organics
- More efficient use of Biocides downstream

Operational Benefits

- No maintenance
- No internal moving parts
- Customizable to each pond or AST

Cost-Saving Benefits

- Uses fewer chemicals
- Increases longevity of water quality for extended storage

MUSTANG extreme
environmental services

mustangextreme.com | (817) 441-1235