

# Evaporation by Accelerated Aeration



- FracCure's proprietary microbubble aeration can help evaporate up to 50 gallons of water aerator per minute.
- Microbubbles cause water to gasify, the required phase change for rapid evaporation.
- Microbubbles represent the most energy efficient way of inducing evaporation in large bodies of water .
- Microbubbles are generated sub surface so water is not ejected into the air with this technology providing up
- to 50% energy savings.

Microbubbles do not cause any airborne contamination via misting that can be wind driven outside of a containment.



**FracCure's Turbine Aerator Can Outlast and Outperform Virtually Any Aerator On The Market**



Turbine technology combines the physics principles of centrifugal force and precession as applied to rotating fluids.



Subsurface storm of emitted microbubbles



No wind-blown spray or mounds of ice generated during winter months

## Even More Benefits To Stack

- Designed to run 24/7 and is ideally suited to harsh mining environments;
- Has no internal moving parts, requires no maintenance/never needs "greasing";
- Will not clog with tumble weeds or most other debris;
- Outperforms impeller type aerators consuming up to seven times the horsepower;
- Features explosion-proof motors in the two to five-horsepower range;
- Made of corrosion-resistant materials;
- Equipped with foam-filled, UV-resistant pontoons guaranteed not to sink;
- Operates at a very low noise level;
- At \$25,000 Installed, it is priced to be cost-competitive with other aerators.

# Sample Installation

To maximize aeration, one unit should be placed every 10,000 - 15,000 square feet of water body surface area.

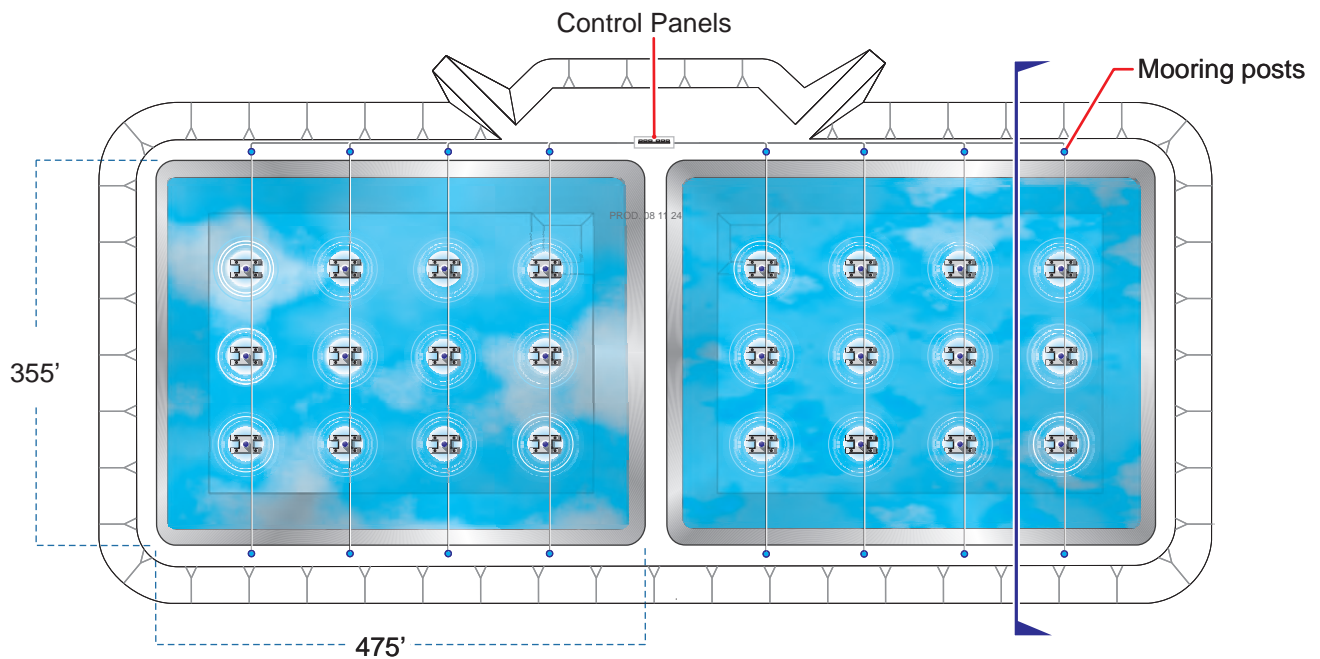
FracCure aerators have 5 HP single or 3 phase explosion proof motors. All contact with water parts are of 316 stainless steel, polyethylene or fiberglass for corrosion resistance.



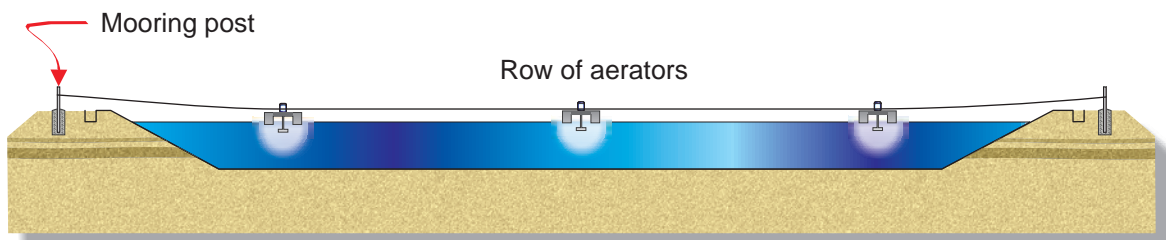
Aerator Scale



Easy installation: Control Panels + Cording/Cabling/Posts



## Plan View



## Section View



## How it Works

A rotating turbine draws atmospheric air through intake ports at the top of a stainless steel drive shaft at approximately 1.4 ft<sup>3</sup>/40 liters per second. The turbine creates an interface between water and air creating both micro and macro bubbles that are hurled out up to 100'/30 m diameter, creating the appearance of boiling water.

## Construction and Product Highlights

- Motors can typically operate continuously in ambient temperatures between -20° to 130° F.
- Motor mounts are made from rigid stainless steel plate.
- Sealed motor bearings use a specialty grease developed by Exxon virtually eliminating the need for re-greasing.
- Turbines are cast from 304 stainless steel with 316 stainless and Inconel 625 options. The aerator can reduce/eliminate complaints about odor.
- Pontoon floats have integrated stand-off legs with liner friendly pads allowing the aerators to rest on floors in low water conditions.
- Floats are of a UV resistant polyethylene shell filled with closed-cell foam, that will not sink during normal operations.
- Aerators feature US made Variable Frequency Drive (VFD) Baldor® motors in single or 3 phase configurations.
- Fraccure VFD can be used to remotely start, stop or change the RPM of the turbine.
- VFD can also incorporate SCADA system or a water level float switch to cycle the unit on an off in low water conditions.





# Mechanical Evaporators

Competitor mechanical evaporators use more energy than the FracCure system and uncontrolled plumes easily arise with wind causing compliance issues.



# Floating Misters

Are prone to clogging especially from algae, freezing/not usable in winter and wind can spread contamination/cause compliance issues.



# EcoVap Towers

Are costly, require site specific design/builds, require plumbing and are not easily reconfigurable/reconstructed for use in successive ponds.





# Partial List of FracCure Clients by Industry

## Municipal Wastewater

Ambient H2O, Peru  
 Aquas Latinas, Mexico\*\*\*\*\*  
 Austin Armature, TX\*\*\*\*  
 Bell Wastewater Design, WA  
 Belle Vista, WV  
 CIAM, Mexico  
 City of Ash Creek, UT \*  
 City of Biggs, CA \*  
 City of Cordell, TX \*\*\*  
 City of Council, ID  
 City of Ewart, MI \*\*  
 City of Gunter, TX  
 City of Hemet, CA  
 City of Lexington, TX \*\*  
 City of Norwalk, OH  
 City of Steward, AK \*\*  
 City of Weslaco, TX  
 Corix Wastewater Management, TX\*  
 Don Skaggs, TX  
 Girl Scouts of Northeast Texas, TX  
 Idaho Department of Corrections, ID  
 Johnson Utilities, AZ  
 Muckerheide, MA  
 STAT Waste Stream Services, LA  
 Taversiers Bourbonnais, Canada  
 Texas Parks and Wildlife, TX  
 Town of Colebrook, NH  
 Town of Imboden, AK  
 Town of Paonia, CO  
 Town of Thatcher, AZ  
 Trinity Bay Conservation, TX  
 Union Parish Police, LA  
 U.S. Army Corps of Engineers,  
 Kingdom of Jordan and Kingdom of Kuwait  
 Department of Energy, Washington State \*  
 Department of Transportation, CA  
 Gypsum, MD  
 Village of Bolingbrook, IL  
 Weyerhaeuser, MT

## Wineries & Breweries

Airfield Estates, WA  
 BJ Brewery, TX  
 ClearBlu Inc., CA\*\*\*\*\*  
 Coors Beer, via Revolver Brewery, TX  
 Cougar Cleaning, Mexico\*\*\*  
 14 Hands Winery, CA  
 Fextex Systems, Inc., WA  
 Hall Wines, CA  
 Parducci Winery, CA  
 Real Ale Brewery, TX \*\*\*\*  
 Revolver Brewery, TX \*\*\*\*

## Food Processing

Michigan Sugar Company, MI\*\*\*\*\*  
 Minsa Corporation, TX\*\*\*  
 National Frozen Foods, WA  
 Oakrun Bakery, Canada\*  
 Omega Protein, LA  
 Pangea Waste Systems, MI  
 Pepsico, via Kevita Pro-Biotics, CA \*\*\*  
 Aquabest Seafood, FL  
 Arysta, Canada  
 Aviana Estebanez, FL  
 Boar's Head, AR  
 Cape May Foods, NJ  
 Dalles Fruit, WA  
 El Milagro, TX  
 Enviropure Systems, SC \*\*\*\*  
 Induaqua S.A.S., Mexico/CA  
 Kellogg Company, KY  
 LaMonica Fine Foods, NJ

## Farm Operations

Conlee Haustein Farm, Canada  
 Harrison Farms, NC  
 Martin Farms, MO  
 Milk Unlimited Dairy, IA  
 Mosiac Fertilizer, FL  
 OmniLyte Enviro, Canada \*\*\*  
 Somnio Global, MI  
 Stahlbush Farms, OR\*\*\*  
 Taylor Brother Farms, CA  
 Valley Beef, CA

## Industrial

Advanced Team USA, MI  
 Affordable Waste, KY \*  
 Atlantic Industrial Electric, WI  
 Broadbent, WY  
 Bunge, IN  
 Cassella Waste Inc., PA  
 DRA Global, PA  
 Equipsa Enterprises, TX  
 Grupo Acuicola, Mexico  
 HED Environmental, TX\*\*  
 Heilae Development, AZ  
 Jim Green Jr. Co., MI  
 Lonza, Inc., PA  
 Mercer Controls, TX  
 Motion Ind., FL  
 NRG Energy, PA  
 Patriot Coal, Canada  
 Pond Management Inc., TX  
 PrideChem Inc., Singapore  
 Rangy Inc, FL  
 R.S. Gordon, CA  
 Santo Lubes, SC  
 Solfuel, CA  
 Wallbridge Mining Co., CA  
 WSA Compliance, CA

## Aquaculture

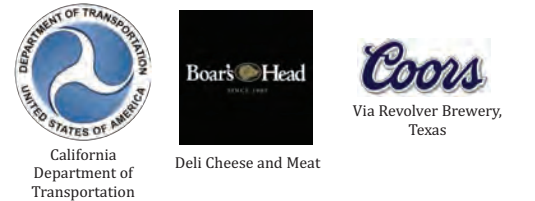
Arizona Fish & Game Dept., AZ  
 Ekstrom Fish Farm, TX  
 Farallon Aquaculture, FL  
 Pacific Corp., WA  
 S&K Catfish, MS  
 Shasha Mendoza, FL  
 Walls Gator Farm, LA

## Greenhouse Nurseries

Seville Farms, TX  
 Sun Nursery Inc., FL\*\*

## Oil & Gas

New Field Energy Inc., OK \*\*  
 PureStream Enviro Inc., TX \*\*  
 QEP Energy Inc., TX \*\*\*  
 Rio Resources Inc., TX \*\*  
 Rockwater Energy, UT \*\*\*\*  
 R360 Inc, CO  
 Danlin Oil Services, OK \*\*\*\*  
 ExxonMobil, via XTO Subsidiary, NM  
 Coil Chem, OK\*  
 Continental Oil, TX  
 Devon Oil and Gas, TX  
 FDL Operating, TX  
 FlexChem Inc., OK \*\*\*\*\*  
 Linch Environmental, WY



Repeat Purchases of Aerators Indicated by: \*

