

Nature. Technology. Innovation.



# *PAX Water Mixers*



[www.paxwater.com](http://www.paxwater.com)

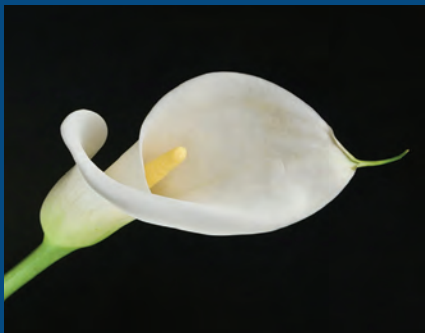
## Innovative Water Quality Solutions – Inspired by Nature

PAX Water Technologies is the leading manufacturer of technologies that improve water quality in storage tanks and in water distribution systems. The design of PAX Water Mixers combines rigorous scientific analysis with biomimicry: utilizing nature's fluid mechanical principles to achieve superior energy efficiency in a remarkably compact form. With an install base approaching 1,000 units worldwide and a fleet age of over seven years, the PAX Water Mixer is the most frequently specified mixing system by consulting engineers and municipal water system operators. The PAX Water Mixer is installed throughout the United States, Canada, Australia, Europe and the Middle East.

- In-house water quality and fluid dynamics laboratory
- In-house high-fidelity Computational Fluid Dynamics capability
- In-house product testing and verification
- NSF/ANSI 61, ETL and UL certified systems

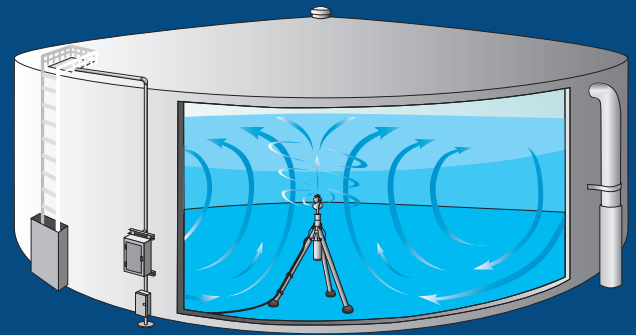
>> Biomimicry – adapting nature's solutions to solve technical problems."

—Jay Harman, Founder, PAX Scientific



>> Since the PAX Mixer has been installed, we've seen better residuals at the top and bottom layers and have had great water quality; furthermore, nitrification levels have dropped significantly.”

—Randall Wilhelm, O&M Distribution Supervisor,  
South Coast Water District, California



## Powerful Mixing – The Key to Better Water Quality

### Active mixing improves water quality

- Eliminates thermal stratification, short-circuiting and “dead zones”
- Eliminates chemical stratification and reduces residual loss
- Lowers surface water temperature and combats biofilm growth
- Reduces variability in water taste and odor
- Reduces nitrification risk in chloraminated water systems
- Lowers rate of disinfection by-product (DBP) formation

### Active mixing protects tank assets

- Prevents ice formation in cold climates
- Lowers headspace temperatures and reduces corrosion rates
- Lowers the rate of sediment accumulation



# PAX Water Mixer Family – for All Types of Tanks

## PWM100 / PWM150

Compact, lightweight jet mixer. Utilizes PAX's patented vortex nozzle design for powerful mixing in small to mid-size tanks.

### TANK SIZE:

Up to 375,000 gal (PWM100)  
Up to 750,000 gal (PWM150)

### TECHNICAL DATA:

Power Supply: 120 VAC  
Power Draw: 670 watts  
Height: 30" (PWM100)  
34" (PWM150)  
Weight: 40 lbs (PWM100)  
42 lbs (PWM150)

### FEATURES:

- Self-install design
- Points upward, even on sloped floor
- Completely NSF-61 certified

### OPTIONS:

- Chemical feed attachment
- SCADA-compatible

## PWM200 / PWM400 / PWM500 / PWM600

Powerful tripod-mounted mixer using PAX's patented Lily impeller to create power and energy efficiency

### TANK SIZE:

Up to 0.75 MG (PWM200)  
Up to 9 MG (PWM400)  
Up to 15 MG (PWM500)  
Up to 25 MG (PWM600)

### TECHNICAL DATA:

Power supply: 120/240 VAC  
Power draw: 575 watts (PWM200)  
345 watts (PWM400)  
825 watts (PWM500)  
2,130 watts (PWM600)  
Height: 38" (PWM200)  
49" (PWM400, PWM500, PWM600)  
Weight: 47 lbs (PWM200)  
53 lbs (PWM400)  
59 lbs (PWM500)  
71 lbs (PWM600)

### FEATURES:

- Fixed or free-standing installation
- SCADA-compatible
- Completely NSF-61 certified

### OPTIONS:

- Chemical feed attachment
- Solar powered
- Self-install design



# and Process Conditions

## PWM400-VAM / PWM500-VAM / PWM600-VAM

Powerful low-angle mixer using PAX's patented Lily impeller to create thorough circulation in large, shallow reservoirs

### TANK SIZE:

Up to 8 MG (PWM400-VAM)  
Up to 14 MG (PWM500-VAM)  
Up to 20 MG (PWM600-VAM)

### TECHNICAL DATA:

Power supply: 120/240 VAC  
Power draw: 345 watts (PWM400-VAM)  
825 watts (PWM500-VAM)  
2,130 watts (PWM600-VAM)  
Height: 31"  
Weight: 73 lbs (PWM400-VAM)  
80 lbs (PWM500-VAM)  
90 lbs (PWM600-VAM)

### FEATURES:

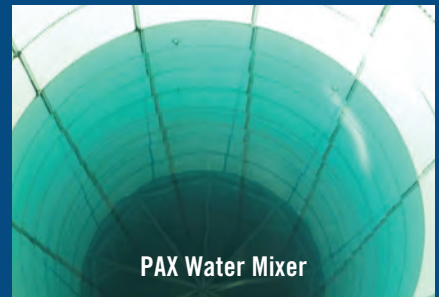
- Free-standing installation
- Self-installable
- SCADA-compatible
- Completely NSF-61 certified

### OPTIONS:

- Chemical feed attachment
- Solar powered



No Mixer



PAX Water Mixer

>> The PAX Water Mixer works, plain and simple. I'm never going to worry about ice again."

—Frank Kearney Sr., Superintendent,  
Old Town Water District, Maine



# PAX Water Mixers – Proven Success in Tanks of All Shapes and Sizes

>> We installed a PAX Mixer in a problematic half million gallon reservoir and have seen excellent mixing throughout the entire tank. The PAX Mixer solved our thermal stratification problem and continues to maintain great water quality.”

—Dan Heibel, former Water Quality Specialist, The City of Redwood City, California



## Ground-Level Storage Tanks

Ground-level storage tanks are exposed to the sun and often experience thermal stratification and high water age. PAX Water Mixers have been installed to eliminate thermal stratification and improve water quality in tanks from 0.05 MG to 30 MG.

## Elevated Tanks

Elevated storage tanks tend to get hotter in the summer and colder in the winter. Large mixing systems that require cranes and hatch alterations for installation are inconvenient. The PAX Water Mixer can be easily installed without draining the tank and does not require a crane.

## Underground Tanks

Underground reservoirs are better insulated, but often have issues with thermal and chemical stratification. A lot of these reservoirs are large and shallow, with numerous support columns that can impede lateral flow and inhibit mixing. PAX horizontal mixers (PWM-VAM series) are ideally suited to mix and circulate water in these situations.

## Standpipes

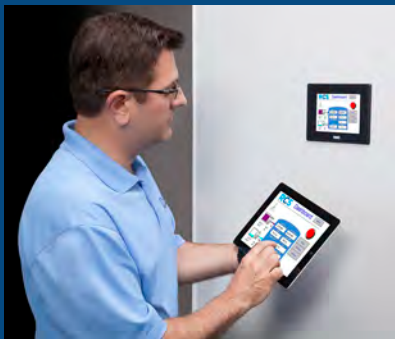
Standpipes suffer from some of the worst mixing problems. They are tall and narrow, prone to rapid and extreme thermal stratification. PAX Water Mixers have tackled the most challenging mixing conditions in standpipes, eliminating thermal stratification and restoring healthy disinfectant residual levels up to the top of the tank.

>> The success of the TRS aeration system in the Millingport tank has given us a new tool to reduce THMs in our system.”

—Donna Davis, Utilities Department Director, Stanly County, North Carolina



## Fully Integrated Water Quality Systems



### Automated Disinfectant Dosing Systems

Adding disinfectant to tanks to boost residual levels is impossible to do without thorough mixing. The PAX Water Mixer has been proven to provide the most powerful and reliable mixing performance in residual boosting applications. The PAX Water Mixer has optional chemical injection equipment to deliver a dose into the fast-moving jet above the mixer. PAX and its partners have also developed automated dosing systems that continuously monitor and adjust chlorine or chloramine disinfectant levels in storage tanks – enabling operators to reliably control water quality.



### In-Tank Aeration for THM Removal

Tank aeration is a proven method for removing volatile disinfection by-products such as trihalomethanes (THMs) from finished drinking water. PAX has developed TRS – an energy-optimized aeration system that is customizable for any sized tank. However, aeration is of limited effectiveness if the tank is not adequately mixed. The powerful PAX Water Mixer ensures that an aeration system is maximally efficient. Even without supplemental aeration, the PAX Water Mixer can produce substantial reductions in THM levels in water storage tanks and reservoirs.

We are committed to creating a world where high-quality drinking water is sustainably produced, efficiently distributed, and universally valued as a life-giving foundation for healthy communities.

Our mission is to deliver innovative, durable and elegant water quality solutions, inspired by nature and backed by science, to our partners and the communities they serve.

ANY TANK. ANY SIZE.™



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