

# Water Storage Tank Mixer



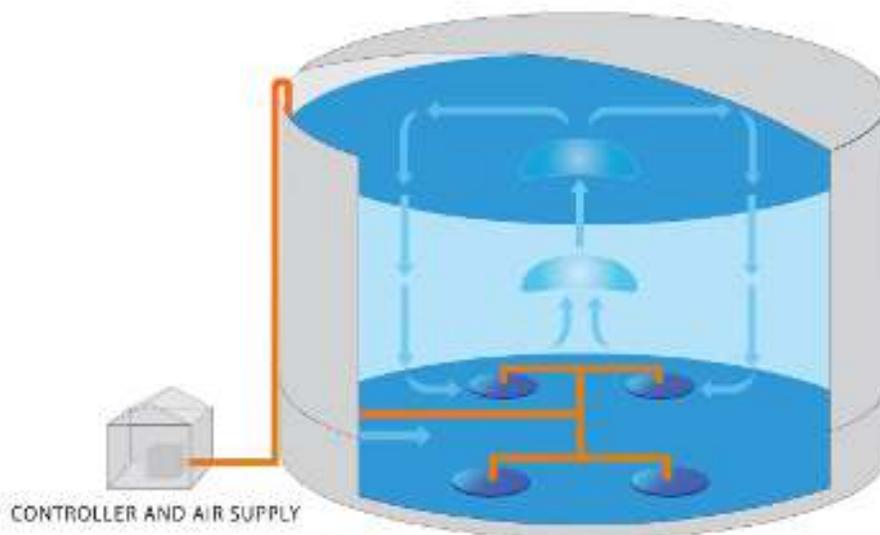
## Efficient mixing systems for potable water storage tanks

Drinking water storage tanks should be actively mixed to avoid thermal stratification, reduce the formation of nitrates and lower disinfection by-products (DBP). Pulsair Systems offers the fastest, most effective low energy cost solution for actively mixing any size potable water storage tank. Our proven sanitary mixing process is up to 80-90% more energy efficient than traditional mixing methods and addresses all the major challenges of potable water storage tank mixing.

### How it works:

The Pulsair mixing process works by producing sequentially timed pulses of compressed air to generate large bubbles at the tank bottom. The rising bubbles create an immediate vertical circulation pattern that gently stirs and blends 100% of the water in the tank. The Pulsair water tank mixing process is the fastest and most energy efficient because it uses gravity to do the work of mixing. The only energy consumed is during the process of compressing the air. Once the bubbles are released at the tank bottom, no more energy is consumed. The water in the tank continues to move long after the bubbles reach the water surface. Large million gallon water tanks can be properly mixed in less than 20-minutes.

PULSAIR POTABLE WATER TANK MIXER



Certified to  
NSF/ANSI 61

### Why mix potable water?

- Prevents formation of thermal stratification layers
- Provides uniform water quality
- Uniform temperature and chemical distribution
- Protects against formation of disinfection by-products (DBPs)
- Reduces risk of nitrification
- Prevents ice formation

### Why use the Pulsair mixing process?

- Reduces energy use with efficient intermittent mixing
- Conserves water by eliminating need for deep-cycling
- Helps achieve EPA Stage 2 DBP Rule compliance
- Mixes 100% of the water without deadzones
- Extremely efficient mixing in disinfectants
- Zero in-tank maintenance
- NSF/ANSI 61 Certified

## Types of tanks

- Ground reservoir tanks
- Standpipes
- Elevated pedestal
- Hydrospheres

## Eliminates thermal stratification

The Pulsair system uses a vertical active mixing process to quickly break up stagnant layers of water and reduce the formation of thermoclines and thermal stratification layers in potable water storage tanks. The rising bubbles create immediate vertical mixing circulation pulling colder water up into the tank to achieve uniform water temperature.

## Reduces nitrification

Active mixing of potable water with the Pulsair mixing process helps to eliminate nitrification that may occur where chloramine is used to disinfect drinking water. The Pulsair process quickly mixes multi-million gallon water tanks to achieve uniform water temperature reducing the occurrence of nitrification. This saves time and money because operators no longer have to take tanks off-line or deep-cycle tanks.

## Protects against trihalomethanes (THMs)

Potable water tank mixing with Pulsair helps protect against trihalomethanes (THMs) and helps ensure EPA Stage 2 DBP Rule compliance. Thermal stratification and thermoclines are eliminated, which can elevate THM levels.



## Prevents ice formation

The intermittent rising air bubbles from the Pulsair mixing process creates vertical circulation in the tank and increased agitation at the water surface keeping the water in motion which greatly reduces the formation of ice or freezing in the tank.

## Faster mixing

Potable water tank mixing should happen fast and the mixer should be responsive to unforeseen events that require immediate mixing to occur. Unlike small mechanical mixers that can take up to a week to completely mix a potable water tank or passive duckbill nozzles that only mix when the tank is being filled, the Pulsair active mixing process can mix 100% of the water in a multi-million gallon tank on demand.

Contact your local representative

### Pulsair Systems.

P. O. Box 562  
Bellevue, WA 98009-0562  
Phone: 425.455.1263  
Toll Free: 800.583.7797  
<https://www.pulsair.com>

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