

Care for aerators & fountains in winter

Learn how to use water features through the winter to keep ponds fresh and aerated BY WILLIS DANE

In climates where ponds don't freeze, don't fret.



If you can operate a fountain or aerator during winter, even in severe weather, you can keep a portion of a pond open for use by waterfowl or wildlife, provide aerated water for fish and protect any docks from ice damage. Ponds and lakes stay open when aerators or fountains circulate warmer bottom water to the surface.

Despite these advantages, there are two main challenges to keeping aerators or fountains operating through the winter: 1) having the proper setup; and 2) shutting down and storing these units correctly.

Operating in winter

Deeper is better when operating an aerator or fountain to keep waterways free of ice. You can ensure adequate temperature difference between the surface and bottom water if there is a minimum depth of 5 or 6 ft. Add suction tube extensions to access pond depths of 15 ft. or more, allowing for even better ice prevention.

In climates where ponds do not freeze in the winter or where light freezing occurs for short periods, there are no restrictions to operating fountains or aerators. Even short periods of freezing temperatures will not interfere with operation.

While it is possible to operate aerators and fountains safely in winter weather, never attempt operating with a nozzle in severe freezing temperatures. Remove the nozzle to prevent water spraying into the air. Sprayed water cools rapidly and increases the likelihood of ice buildup around the unit. Take off the nozzle and allow the water to gush from the head, which maximizes the flow of warmer water and minimizes cooling from air



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contact. It also prevents ice buildup on the float. Fountains that use impellers instead of propellers pump much less water than aerators, and will keep much smaller areas ice-free.

An even better method of de-icing is the submerged operation technique, which combines the sinking operation and full operation with the nozzle removed. Warm bottom water is automatically blown to the surface, which also minimizes the unit's exposure to winter elements. Using this technique eliminates concerns about power loss, lets the pump be operated under timer control or allows for periodic shutdowns.

Sink or swim

If you don't wish to keep a pond open in winter, either sink an aerator or fountain below the ice or remove it. Sinking eliminates cable handling and storage concerns. It also prevents motor freezing or loss of internal water, and allows simple and safe de-icing operations.

To sink an aerator, attach dense weights, such as weight lifting weights, equally to the float eyebolts (about 12 lb. total weight per inch of float showing above the water surface). Don't use concrete blocks. They lack the density to be effective weights. The attached ropes must allow the weights to hang 2 to 3 ft. below the pump intake so that they rest on the pond floor and allow the pump to float just above the bot-

tom. Be sure to attach a poly rope (that floats) to the float eye and to the floatation device so you can retrieve it in the spring.

Store it away

If you remove aerators or fountains for winter, store them in an area that cannot freeze. Fill motors with an antifreeze solution, but during operation, the antifreeze can gradually be replaced with pond water leakage from seals. A full unit at startup prevents wear and extends motor life.

Using a timer during severe winter operation is not recommended unless the unit is below the pond surface. Surface units should run continually to avoid freezing inside the upper tube, head or nozzle, which could cause damage to those components. Check surface operated aerators or fountains regularly during winter to insure continuous operation. Never operate fountains or aerators in ponds used for ice skating or ice fishing without proper safeguards.

Decide which of your options works best. Winterizing aerators and fountains by removing, sinking or continually running them can protect the units from freezing damage. They can also be used during severe winter weather to prevent portions of ponds and lakes from freezing, offering real environmental benefits while protecting water structures from damage.

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