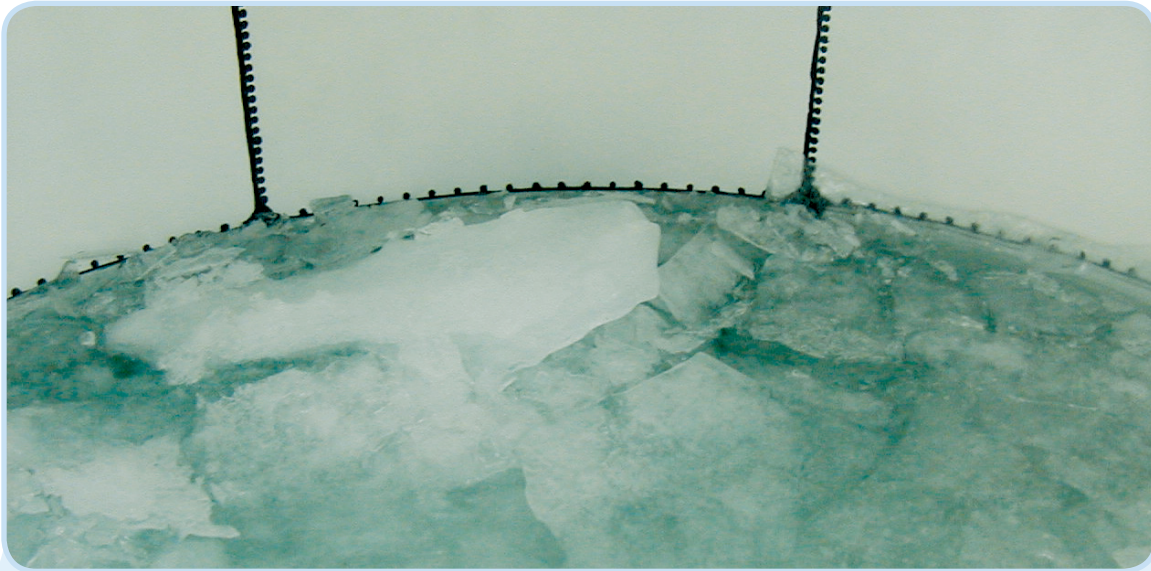


Does **ice** in your water tank give you the **chills** ?

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In colder climates, water storage tanks of all types must contend with winter ice formation. Ice not only decreases the effective storage volume of your tank, but can result in structural damage to the tank and roof assembly.



Incidents of ice damage range from minor to catastrophic and may go unnoticed for years. Proper winter operation is essential in order to prevent damage to the tank, the coatings, the internal piping and appurtenances, etc.. caused by direct impact or the continuous abrasive action of ice.



Floating ice can scrape the tank shell and damage the coatings and sealant. Ice caps can form across the top surface of the water and eventually collapse once water is drawn out. In addition to the potential structural damage caused by the falling ice hitting the tank, piping or appurtenances, roof assemblies can potentially be “sucked in” or damaged by the vacuum created when the ice cap falls.



Ice can also build up on the tank sidewalls and pull pipes, brackets, overflows, weir boxes, etc... away from the tank wall, thus creating structural damage and/or leaks. Ice can also break loose from the tank sidewalls and “shoot up” to the top of the tank with a great amount of force and damage the underside of the roof structure.



To minimize or avoid ice formation, tank contents should be “turned over” as often as possible. Various devices such as heaters, mixers, bubbler systems or recirculation pumps should be considered and/or incorporated as needed. Tank levels should also be lowered during winter months in order to prevent ice from potentially hitting the roof assembly. Periodic visual inspections should be conducted throughout the winter.



Please refer to the winter operations section of your tank O&M Manual and/or Chapter 10 of the AWWA M42 Standard.

Please contact Mid Atlantic Storage Systems, Inc. for more information regarding recommended winter operating procedures and yearly internal tank inspections.

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