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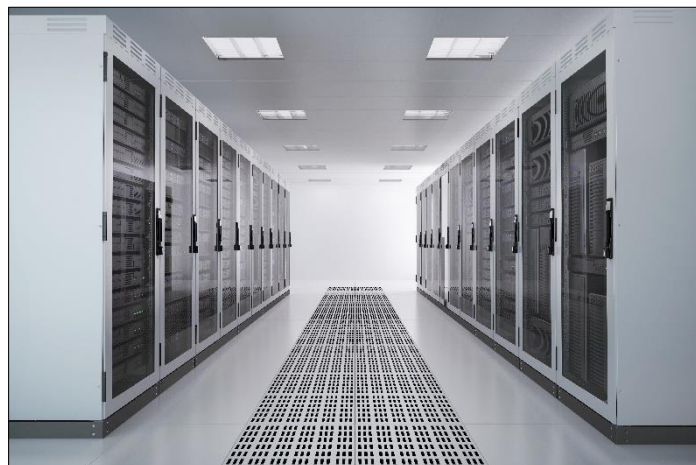


Attention: Editor
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PRESS RELEASE



How to Protect Data Center Cooling Systems During Construction

Our ever-increasing reliance on technology means that the construction of data centers continues to boom, with market growth expected to continue in the foreseeable future. Growing right along with that is the need for cooling systems to dissipate the heat generated by thousands of servers processing data 24 hours a day. But what happens in the interim between cooling system installation and data center startup? The following two corrosion inhibiting technologies are great strategies for keeping cooling water systems in like-new, corrosion-free condition during hydrotesting and dry layup.



Hydrotesting with VpCI®-649

Cooling water systems and any piping network designed to handle fluids must be hydrotested to check for leaks and pressure durability before they are ever used. Unfortunately, this critical step also leaves behind residual moisture that can incite corrosion and related problems before operation ever starts. This can lead to clogging in pipes and chillers at startup or even deterioration and leakage of the system wall if left undetected. An easy solution is to add [VpCI®-649](#) to the hydrotest water. VpCI®-649 combines contact and Vapor phase

Corrosion Inhibitors in a liquid formulation that does not contain nitrites, phosphates, or chromates. Treated hydrotest water can be captured and reused for multiple hydrotests on different pieces of equipment. Those also facing molybdate restrictions can opt for VpCI®-649 MF, which uses a PTSA tracer (in place of molybdate) for easy detection of corrosion inhibitor concentration. As VpCI®-649 circulates through the system in the hydrotest water, it leaves behind a corrosion inhibiting film that continues to protect the piping after the system is drained. No further removal is needed before commissioning.



Dry Layup of Chiller Bundles and Other Isolated Chambers

After the chiller has been installed but prior to piping completion, larger, isolated void areas like the chiller bundle should undergo dry layup with the [Cooling Tower Frog®](#). This Cortec® water treatment “animal” consists of a water soluble bag containing Vapor phase Corrosion Inhibitor powder. The product is very easy to apply, with little or no surface preparation required.

Once the bags are placed in the end of the chiller bundle or other enclosed area, the film should be slit open to release the corrosion inhibiting vapors before closing all openings to the void area. As time passes, these Vapor phase Corrosion Inhibitors diffuse throughout the enclosed space, adsorbing on metal surfaces in the form of a protective molecular layer that inhibits the corrosion reaction, even in the presence of moisture. To make life even better for the commissioning crew, there is no need to remove the Cooling Tower Frog® at the end of the layup period. When the chiller is turned on and cooling water is flushed through the system, the Cooling Tower Frog® will simply dissolve in the makeup water.

Faster and Better Data Center Construction

Design and construction of data centers is getting easier and faster as builders learn from past experiences and create new blueprints to follow. The use of VpCI®-649 and the Cooling Tower Frog® for corrosion protection in cooling systems is just one more insight to make the process more efficient than ever by preserving chill water systems in their original state and eliminating unnecessary corrosion complications at startup. Contact Cortec® to learn more about this groundbreaking approach to a critical part



of data center construction: <https://www.cortecwatertreatment.com/contact-us/>

Keywords: data center construction, data center cooling systems, corrosion inhibiting technologies, hydrotesting, VpCI-649, cooling water systems, dry layup of chiller bundles, Cooling Tower Frog, Vapor phase Corrosion Inhibitors, molybdate restrictions

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