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PRESS RELEASE



Preventing Boiler Corrosion During Shutdown – What’s Your Layup Style?

Seasonal layup is just around the corner for many industries that rely on boilers for winter heating. But no matter what time of year it is, proper protection during boiler shutdown is critical to avoiding serious corrosion problems that can lead to plugging, leakage, or shortened service life. Cortec’s convenient boiler layup “animals” address these problems and surpass traditional layup methods that can be cumbersome at best and non-existent or dangerous at worst. The only question is which Cortec® boiler layup style to choose.



Dry Layup Options

Dry layup is an excellent option for long-term corrosion protection—whether for a seasonal shutdown or a facility mothballing project. Instead of relying on desiccants or nitrogen purge, which can lose their effectiveness or (in the latter case) threaten worker safety, Cortec® boiler “animals” for dry layup are extremely easy to handle.



Boiler Lizard® is Cortec's most well-known boiler "animal." This "reptile" contains Vapor phase Corrosion Inhibitor powder packaged inside a water-soluble film tubing. Application is simple: place the Boiler Lizard® into the boiler waterside, slit open the water-soluble packaging, and close the boiler openings. Vapor phase Corrosion Inhibitors fill the boiler internals with protective vapors that form a corrosion inhibiting layer on the metal surfaces. When it is time to return the boiler

to service, the Boiler Lizard® can be left to dissolve in the makeup water. Boiler Lizard® is most commonly used for **mid-size boilers** (one Boiler Lizard® per 1,000 gallons [3,800 L]).

Facilities with **smaller boilers** may prefer the **Boiler Gecko™**. This convenient ready-to-use Vapor phase Corrosion Inhibitor fogging fluid is packaged in an air-powered spray can for quick and easy layup of waterside and fireside components where Boiler Lizard® is not practical. Boiler Gecko™ should be sprayed inside the boiler after it has been drained and cooled. There is no need for product removal or additional flushing at boiler startup. One Boiler Gecko™ protects approximately 100 gallons (380 L) of enclosed boiler volume.

Boiler Dragon™ is designed to meet the dry layup protection needs of the **largest boilers**. This ready-to-use waterborne multi-metal Vapor phase Corrosion Inhibitor is applied by fogging into drained boiler and steam components. It is a safer alternative to nitrogen blankets and more effective and convenient than desiccant. Boiler systems preserved with Boiler Dragon™ can be returned to service quickly by simply filling the boiler with makeup water.



Wet Layup Options

Sometimes, wet layup is better for situations like short-term boiler layup or boiler redundancy, when the boiler needs to remain filled. Cortec® offers the following outstanding wet layup options.

The **Boiler Iguana™** is a great protection option for boilers on standby. The standard procedure for standby boiler protection is to apply sulfite and/or maintain high pH levels. This requires frequent testing, which often falls by the wayside and leads to corrosion problems after all. Boiler Iguana™ eliminates these high-maintenance activities. The corrosion inhibitor can be added to the feedwater and/or condensate system and pumped to the boiler. The boiler can either be shut down for layup



or kept on low fire for standby. Multi-phase corrosion inhibitors protect metals below and above the water level. Startup is fast and easy because the Boiler Iguana™ is compatible with other water treatment chemicals and there is no need to drain (or refill) the boiler before bringing it back online.

The **Boiler Salamander™** is a great wet-layup option for high-purity steam boilers. The Boiler Salamander™ is effective at low concentrations in deionized or reverse osmosis water. The boiler does not need to be drained or opened to apply the Boiler Salamander™ or to bring the boiler back online.

Wet-Dry Layup

The **Boiler Turtle™** can be used for wet or dry layup and is ideal when the boiler may need to be brought back online much quicker than a dry layup allows. The Boiler Turtle™ can be added directly to the feedwater and/or condensate system, pumped to the boiler, and left to sit in the offline system for 24 hours. The boiler can then be drained for dry layup or left at high-water level for wet layup.

Plan Ahead for Good Startup



When performing dry layup with the Boiler Lizard®, users can plan ahead for a good startup by using **Boiler Egg™** as a companion product. Although applied at the same time (beginning of layup), the Boiler Egg™ remains dormant until the boiler is refilled at startup. This is a critical time when cold untreated makeup water rushes into the system and heightens the risk for oxygen pitting and subsequent corrosion problems. The

Boiler Egg™ comes in an easy-to-handle pouch that is readily dissolved upon water contact, releasing active ingredients that scavenge oxygen and passivate metal during initial filling of the system.

What's Your Style?

Cortec® has many effective and convenient options to ensure boilers are kept in the best possible condition during shutdown. The remaining decision is simply to choose which boiler treatment matches your boiler size and layup requirements. Contact Cortec® today to discuss these revolutionary options:

<https://www.cortecwatertreatment.com/contact-us/>



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