



CASE STUDY:

NFL Stadium Crossflow Tower Repack



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Location: United States

Products Installed: XF75, XF75ID, CF1900, XF Distribution Pad, XF150MAX, XF600 Drift Eliminator Supports, AccuGrid, Utility Angles

Results: Improved fill performance & drift elimination

Overview

The on-site cooling tower at a popular NFL stadium in the U.S. recently needed to replace their fill and drift eliminators. After many years in operation (and millions of happy fans), the products in the factory-assembled crossflow tower had reached end of life.

A reputable cooling tower contractor reached out to Brentwood for help on the project in the hopes of converting the OEM hanging fill sheets to more durable, bottom-supported packs.

Problem

The customer was looking to replace their OEM hanging fill sheets as they were beginning to tear and split apart. This was not only causing reduced performance output but also excess drift. By opting for a bottom-supported fill type, they knew they could reduce stresses from fouling and maintain performance. They also sought out a drift solution that would be capable of handling the high air velocities running through the tower.

Solution

Brentwood was familiar with the problems the customer was experiencing as this is a recurring issue with hanging fill sheets. High-efficiency, bottom-supported fill was recommended as a replacement, including both integral and stand-alone drift eliminators.

A combination of XF75 and CF1900 were used for the fill section, offering an upgrade over the OEM hanging sheets. These fills are bottom-supported, which means that the stress imparted on the products can be reduced by supporting it over more surface area.

Due to the tower's high air velocities, Brentwood strongly suggested utilizing both integral and stand-alone drift eliminators, which led to the use of XF75ID and XF150MAX. Together, these products would maximize performance, minimize pressure drop, and eliminate significant drift issues while also reducing future maintenance costs.

To round out the installation, a distribution pad was used for improved water dispersion, AccuGrid panels were utilized between layers as an intermediate interface, and utility angles were used as air seals along the tower walls and casings.

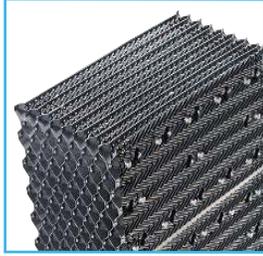
Results

All fill, drift, and related components were successfully replaced on time and ahead of schedule, improving performance and restoring the tower's capability.

Brentwood Inside: Products Installed for the NFL Stadium Crossflow Tower Repack

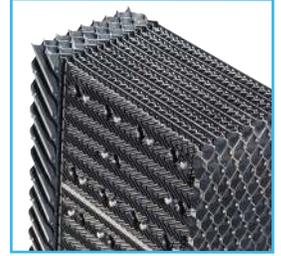
XF75

Brentwood's XF75 utilizes a proven herringbone surface design that evenly distributes water for high thermal performance. The packs feature honeycomb bonded edges and interlocking offsets that space the sheets to form strong, stackable packs.



XF75ID

XF75ID packs include integral drift eliminators to combine drift loss with the high thermal performance of the standard XF75 fill pack.



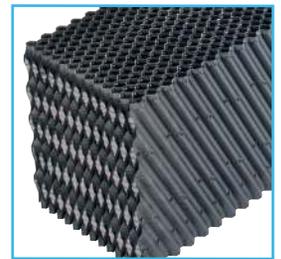
CF1900

Although typically used in counterflow applications, CF1900 can also be applied in crossflow towers. For this project, it was used between XF75 and XF75ID as a high efficiency fill option.



XF Distribution Pad

Brentwood's XF Distribution Pad is often used in crossflow tower applications for enhanced water distribution and thermal mixing.



XF150Max

XF150Max provides a cost-effective solution with drift loss of 0.001%. Its high surface area and nesting design provide maximum performance at minimum pressure drop.



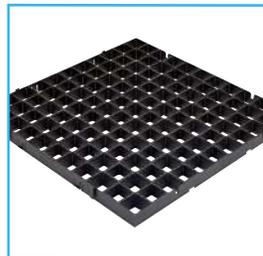
XF600

XF600 Drift Eliminator Supports are a simple, cost-effective way to support drift eliminator panels in crossflow towers.



AccuGrid

AccuGrid's interlocking panels protect underlying cooling tower media from surface loading and hydraulic impact. It covers the entire media surface to offer complete system access during installation and maintenance and can also be used as an intermediate interface in cross-flow applications.



Utility Angles

Brentwood Utility Angles are a simple, safe solution for use in non-structural cooling tower applications, such as perimeter sealing. Made from extruded PVC, they offer an economical alternative to standard FRP products.



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