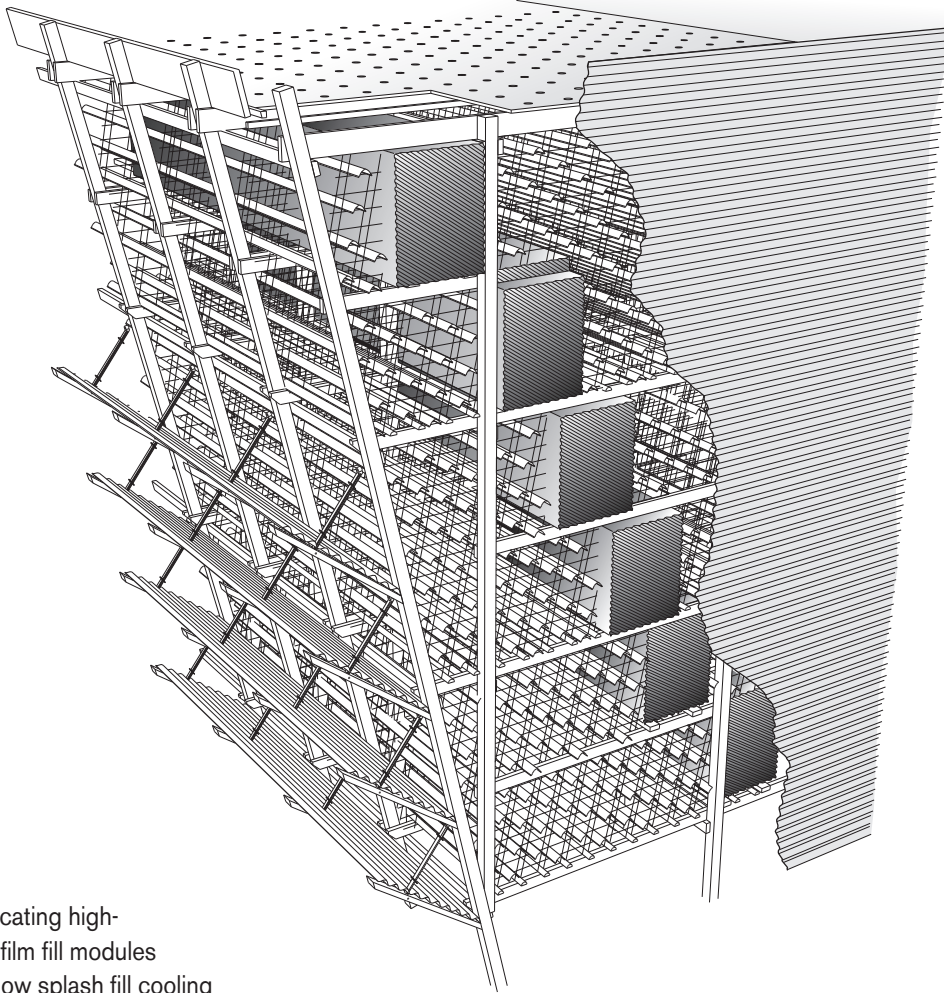


## / Marley Flash Crossflow Fill /



**S**trategically locating high-performance film fill modules within your crossflow splash fill cooling tower can significantly upgrade the thermal performance without costly structural and mechanical equipment modifications.

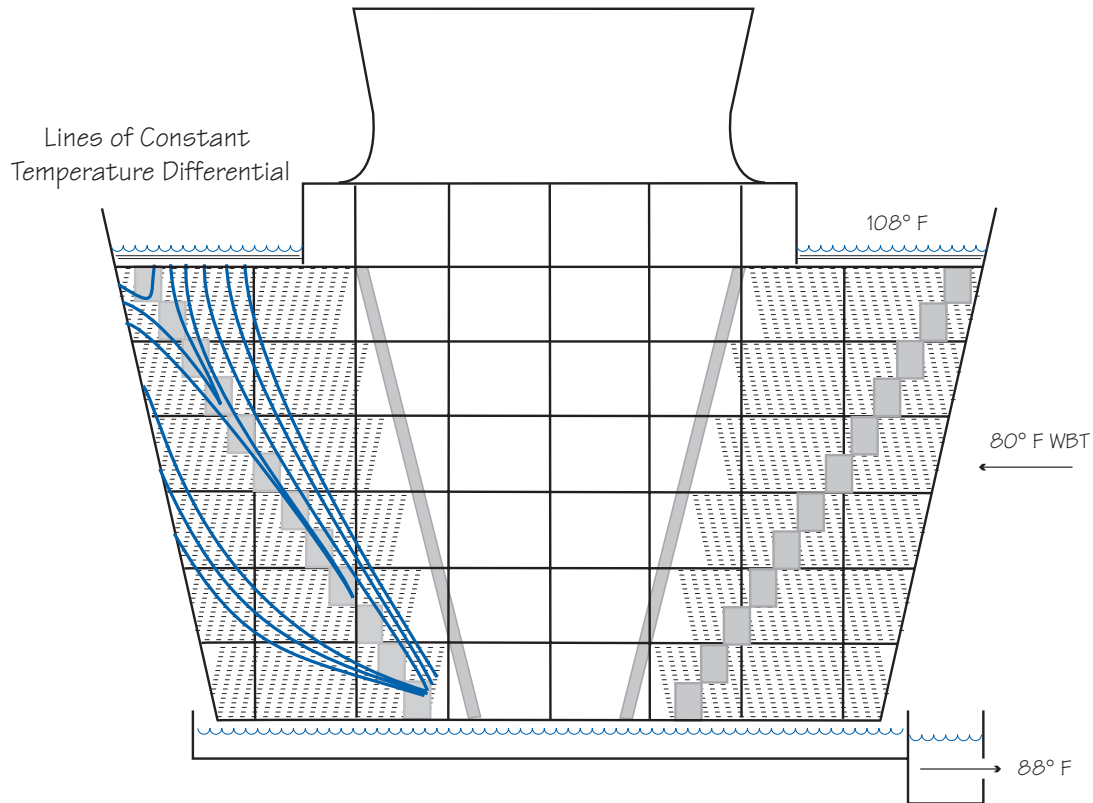
Marley Flash Fill combines modules of PVC film fill with splash fill to optimize the thermal performance of your cooling tower. Film fill modules are installed in a staggered pattern from the hot water distribution basin

at the air inlet face descending diagonally to the eliminator face at the cold water collection basin. This configuration utilizes the excellent heat transfer efficiency of film fill while maintaining a pressure drop that is only incrementally higher than a typical splash fill configuration.

This patented design enables us to offer the cooling tower owner significant performance improvement without a change in tower plan area, plus the potential reuse of the existing splash fill and grids. Marley construction crews can even install Flash Fill *on-the-fly* one cell at a time.



## / Marley Flash Crossflow Fill /



### / Why Flash Fill? /

Marley® Flash Fill combines film and splash fill in crossflow cooling towers. Film fill is capable of much higher heat transfer than splash fill, but is also costly. Combining the two fill types offers a good balance between cost and performance.

The crossflow design depends on all parts of the fill section receiving balanced air flow and water flow. When film fill is added, the distribution of water and air is changed. If not carefully arranged, performance can be negatively affected.

As the illustration above shows, the stepped arrangement of Flash Fill presents a balancing effect both for water flow and air flow. All of the water throughout the air travel passes through the same height of film fill during its descent.

The water that reaches the top of each film fill pack at each step has not yet been through film fill, and is positioned at the location offering the greatest difference in temperature between the air and water. This temperature differential takes advantage of the efficiency of the film fill at each level. Also, all of the air passes through the same total air travel of film fill, as well as splash fill. So, the air flow is balanced from top to bottom.

The Flash Fill concept is the best balance to achieve maximum thermal gain with minimum added film fill and associated cost.

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UNIT 505, BLOCK B, PHILEO DAMANSARA 2 | NO. 15 JALAN 16/11, OFF JALAN DAMANSARA | 46350 PETALING JAYA, MALAYSIA | 60 3 7947 7800 | [spxcooling.com](http://spxcooling.com)

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