MARLEY®

MBX EZ Pack fill



Marley MBX EZ Pack fill is a highperforming, bottom-supported, two-piece PVC pack fill with integral louvers and drift eliminators, specifically designed for fill replacement projects. The contractorfriendly fill design makes installation fast and easy without requiring major tower modifications.

The EZ Pack fill incorporates highlyefficient cellular drift eliminators, which are integrally molded into the fill sheets. These eliminators may reduce drift emissions from the tower by a factor of 10 or more. Louvers are also integrally molded within the fill sheets, preventing water from escaping and ensuring precise air distribution throughout wide variations in airflow.

MBX EZ Pack fill is available from the factory in various heights and air travels from 48" to 60". It can be stocked and modified on-site for the exact air travel and height dimensions needed for crossflow cooling towers – regardless

of tower age or manufacturer. Retrofit kits include fill packs and steel supports that require no hardware. MBX EZ Pack fill is stackable for use in modular towers, eliminating the need for mid-level structures.

MBX fill is thermoformed from inert PVC for long service life and minimal maintenance. The PVC has a flame spread rating of 25 or less per ASTM-84 and is considered self-extinguishing.

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PROPERTIES

Base Material – polyvinyl chloride (PVC) sheets

Material Properties:

Tensile Strength - 6,000 psi (at room temperature)

Flexural Modulus – 525,000 psi (meets CTI-STD-136)

Specific Gravity - 1.39-1.45

PVC Sheet Thickness - 15 mils (0.015") for single height tower, modular towers 20 mils on bottom and 15 mils on top Sheet Spacing - 0.75"

Weight per Cubic Foot of Completed Fill Packs - 2.33 lb/ft³ @ 20 mil

Heat Transfer Area (Wetted Surface) - 51.2 ft²/ft³

Drift Eliminator Configuration - 3 pass

Typical Drift Rate % of circulating gpm at FPM fill velocity at L/G

SUGGESTED SPECIFICATION

The fill material shall be installed in a crossflow cooling tower.

Construction and Materials

The fill shall be film type, Marley MBX EZ Pack fill or approved equal. Louvers and eliminators shall be thermoformed integrally with each fill sheet. The fill shall consist of 20mil (0.020") thick polyvinyl chloride sheets. Flame spread rating of the material shall not exceed 25 per ASTM E-84.

Configuration

The fill shall be designed specifically for crossflow cooling tower applications. It shall contain a minimum of 51 square feet of wetted heat transfer surface per cubic foot of fill material.

The fill supplier shall determine the total volume of fill required to achieve the specified thermal performance.

Air inlet faces of the tower shall be free of water splashout. Drift eliminators shall be triple-pass, and shall limit drift losses to no more than 0.005% of the design gpm flow rate. Air from the drift eliminators shall discharge at a minimum angle of 45° from the horizontal.

Supports

Fill shall be bottom supported on a steel support structure that does not require any fasteners to assemble, and shall be elevated at least 2" above the floor of the cold water basin to facilitate cleaning. The fill supplier shall review the details of the existing tower structure, either by review of detailed dimensional tower drawings or by physical inspection. Based on this review, the fill supplier shall provide fill support and sealing design details appropriate for the existing tower structure.

Hot Water Distribution

The fill supplier shall define any necessary changes to assure uniform water distribution to all areas of the fill section.

Fill Depth (Air Travel)

The fill depth shall be chosen to provide the proper thermal performance. If a fill height greater than the maximum height of available fill packs is required, a second layer of fill packs may be added, but no more.

Performance

The vendor shall guarantee fill performance as installed.

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