

HDG STEEL STRUCTURE COUNTERFLOW COOLING TOWER



The structure consists of Mild Steel sections with the industrial type corrosion protection by Z600 galvanizing standard. All structural joints are through bolted for maximum strength and rigidity. Flame spread rating is 25 or less per ASTM E-84 will be available as option. This installation allows isolation on a cell-by-cell basis for maintenance and/or reduced heat load operating flexibility. The fan deck shall incorporate a non slip surface and is designed for 60 psf and is capable of supporting either the motor or gear set at any location directly over a supporting beam. Each panel is supplied in 6 to 18 ft x 2 to 4 ft sections for overlaying and screwing to the steel structure below. Handrails, knee rails and toe boards are installed around the periphery of the fan decking in accordance with OSHA requirements. Transverse partition walls will be installed between each cell, extending from the underside of the fan deck to normal water level. Casing, Wind Walls and Partition shall be of Fiberglass.



Both perimeter columns and interior columns will extend to the basin floor. Framework members will be through bolted at all connections. Perimeter braces will be secured to the flat concrete floor of the basin utilizing galvanized steel studs with resin insert cartridges. Nuts, bolts, washers, nails and anchor bolts shall be galvanized steel. All base anchor castings shall be of the same material as the anchor bolts. Mechanical equipment is secured with HDG steel bolts to ensure torque values are maintained. Fan deck access is provided by a semi-freestanding steel stairway situated at one end of the tower. The stairway is supported from a concrete base at grade level (by others) and tied back to the main tower structure at suitable intervals to maximize rigidity. Hardwares of any Stainless Steel series is available as options.

Access to the plenum chamber and fill/distribution area is provided by one 30" X 30" entrance hatch per cell on the fan deck with a ladder extending down to the top of the fill. A local platform is installed directly under the deck access hatch at drift eliminator level to provide a viewing access for the plenum chamber, and down to the spray system and top of fill area.