

PRE-TREATED WOOD STRUCTURE CROSSFLOW COOLING TOWER



All structural member will consist of Fir Dense #1 lumber that will be pressure treated in accordance with CTI STD 112, except moisture, with CCA treatment. Any required field cuts during erection will be field treated with a brush-applied preservative. Plywood or Fiberglass Transverse partition walls will be installed between each cell, extending from the underside of the fan deck to normal water level. This installation allows isolation on a cell-by-cell basis for maintenance and/or reduced heat load operating flexibility. A 1-1/8" treated Douglas Fir tongue and groove plywood fan deck is supplied. The fan deck is designed for 60 psf live load conditions and is capable of supporting either the motor or gear set anywhere on its surface. Each panel is supplied in 4' x 8' sections for interlocking and nailing to the wood structure below. Handrails, knee rails and toe boards are installed around the periphery of the fan decking in accordance with OSHA requirements. Casings and Louvers can be of Plywood or Fiberglass.



Critical joints contain flush mounted, countersunk shear plates. These shear plates prevent the bolts from puncturing the surface fibers of the lumber by distributing loads to a greater area than the bolt alone. Both perimeter columns and interior columns will extend to the basin floor. Framework members will be through bolted at all connections. The majority of the perimeter columns will rest on the concrete walls (with recesses), whereas the internal columns will extend to the bottom the 11 ft deep concrete basin. Nuts, bolts, washers, nails and anchor bolts shall be 300 series SS. All base anchor castings will be of the same material as the anchor bolts. The diagonal bracing straps will be made of a HDG Steel or fiberglass material. Mechanical equipment is secured with HDG steel bolts to ensure torque values are maintained.

An access door in the end wall of the casing will provide access to a treated Douglas fir plywood walkway at the top of the basin level. The walkway will extend the full length of the tower with doors in each partition wall.

