

# wooden cooling tower

cross flow design 150-800 TR

series - X

- › Single cell and multi cell option
- › Balarka high efficient FRP fan
- › Provide maximum cooling
- › Field erected tower
- › Medium to high capacity

# feature

- Anti-clogging nozzle
- Both side accesses for high air entry
- Cost effective superior quality
- Energy saving
- Easy to erect and handle
- High efficient fills

- Long life
- Long service
- Low drift loss
- Cross flow design
- Space saving
- Standard motor system

# material of construction

## Design Overview

The induced-draft tower shall be furnished and install with cross flow-type, field-erected, **wooden structure**, splash fill, and industrial-duty cooling tower. Cross flow tower in which hanged fill, wide indented louvers, and stable FRP fan cylinders enabled the evolution of that Double flow tower shape cross flow towers. The tower has also established a high standard for ease of maintenance. Single cell design compliance to meet medium to large industrial need.

## Fans (Balarka Fans Up to 85% efficient)

PCT designed and manufactured Balarka fans are used on all PCT towers. The fan selection and fan speed for a given tower are based on tower cell size, and horsepower requirements. Blade material is FRP, Fan hubs are heavy-duty steel plate and, hot dip galvanized after fabrication and either epoxy-coated. All fans are assembled with stainless steel or galvanized hardware. Fan designs applied at flow and pressure conditions for which they are ill suited. Fans are statically balance by G6.3 code.

## Fan Stack

FRP stack combine with close blade tip clearances to produce optimum fan performance. PCT Fan stack have exceptionally large entrance diameters, which give good fan performance. PCT fan stack are through-bolted to the fan deck and supporting framework.

## Motor (With Belt and Pulley Drive System)

Special cooling tower purpose motors design with 3 phase, 415V, 50Hz, ambient temperature up to 50deg C, IP55 protection, class F insulation are used.

The drive system sheaves that are located outside the fan stack. Pulley construct with alloy steel. The power band belt is a banded multi-groove belt constructed from premium quality rubber compounds. This is the most efficient type of belt for cooling tower applications.

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## Gear Reducer

The specific Gear Reducer selection is based on fan speed and horsepower requirements per fan. Gear Reducers are meeting the requirements of AGMA Std.

## Drive Shafts

Drive shafts are manufactured from either mild steel hot dip galvanized, stainless steel tubes or carbon fiber composite. Bonded neoprene flexible elements transmit torque. The drive shafts are dynamically balanced to minimize operating vibrations.

## Fill

Every cooling tower to assure selection of the proper fill type & fill spacing. Normally wood plank or PVC splash bars are used for cross flow PCT cooling towers and shall be supported in SS/GI wire or FRP grids.

## Piping

Although side inlet piping is provided as standard. This is an economical method requiring only one riser for each hot water basins. Steel, FRP or PVC pipes shall be customizing.

## Water Distribution System Valves

Flow control valves proved their reliability, providing uniform water distribution. Heavy-duty valve stem assure long life and low maintenance.

## Splash Boxes

Splash box are made by marine grade waterproof ply where located in the hot water basin. The box delivers water to the hot water basin both through slots in the bottom and by overflow. The open, gravity flow design allows uniform water distribution to the fill. Open distribution allows easy access for quick, low-cost maintenance and cleaning.

## Nozzles

The "target nozzle" metering orifices used in the hot water basins are specially designed to deliver the required water rate and are highly resistant to temperature and weathering damage. The use of "target nozzles" also provides uniform water distribution throughout the fill area.

## Drift Eliminators

Drift eliminators are high efficient thermoformed PVC bonded or wooden plank into easily handled. These packs are clamped in place at each girt line, and are self-supporting between girt lines.

## Tower Structure (Treated Wood)

Tower structure is design with suitable codes and internal standard's. All the transverse bents, column, top support, bottom support, sectional supports are suitable wood and marine ply wood. Stainless Steel nail and galvanized steel fasteners where used to gather the structure.

## Casing

The end walls are existence from the fan deck level to below the top of the basin with corrugated FRP sheets or AC Sheets. FRP is waterproof and corrosion proof, is immune to biological deterioration, and requires no maintenance. The casing is attached to structural members with stainless steel coach screw complete with washers. Corner trim pieces are FRP.

## Louvers

Louvers are corrugated FRP sheets or AC Sheets to prevent splash out from the cooling tower. These supports are rigidly framed into louver posts by through bolting. Louvers are supported on centers by structural columns. This scheme provides more than twice the bending strength.

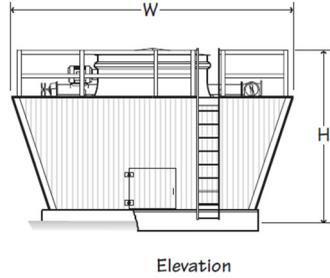
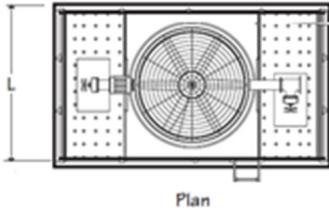
## Additional Services

- Application / Sizing / Layout Services
- Construction Service / Parts Service
- Maintenance Service / Condition Inspection Service
- Reconstruction Service/ Performance Improvement Service
- Tower Replacement Service

# model designation

10XW-3D-1R	X Series	W- wooden structure	3-Motor kw D-Direct drive B-Belt drive C-Gear box	1-No of cell R-RCC basin
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# model drawing

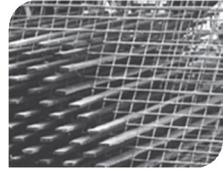


# technical data

SL No.	MODEL	CAPACITY	MOTOR	TOWER DIMENSIONS (M)		
		TR	Kw	L	W	H
1	30WX-3D-1R	150	3.7	6.4	16.7	7.7
2	35WX-3D-1R	175	3.7	6.4	16.7	7.7
3	40WX-5D-1R	200	5.5	6.4	16.7	7.7
4	45WX-7D-1R	230	7.5	8.5	20.5	7.7
5	50WX-7D-1R	250	7.5	8.5	22.5	7.7
6	55WX-11D-1R	275	11	8.5	20.5	9.6
7	60WX-11D-1R	300	11	8.5	22.5	9.6
8	65WX-11D-1R	325	11	8.5	24.5	9.6
9	75WX-15C-1R	360	15	12.5	22.5	7.7
10	85WX-15C-1R	415	15	12.5	24.5	7.7
11	90WX-18C-1R	450	18.5	12.5	22.5	9.6
12	100WX-18C-1R	500	18.5	12.5	24.5	9.6
13	105WX-18C-1R	525	18.5	12.5	26.5	9.6
14	110WX-18C-1R	550	18.5	16.5	24.5	9.6
15	115WX-18C-1R	575	18.5	16.5	26.5	9.6
16	130WX-30C-1R	650	30	20.5	24.5	9.6
17	150WX-30C-1R	750	30	20.5	26.5	9.6
18	160WX-30C-1R	800	30	20.5	28.5	9.6

Note:

- Above information for preliminary layouts only. Do not use for construction.
- To get complete detail please drop a mail to us we will select you best product at right worth.
- Above towers are design for 37 HWT, 32 CWT and, 27 WBT.



our products are known for their advanced design  
and premium quality

your water, power, time and cost saving solutions