EX-S

PACKAGED COOLING TOWER

SINGLE-CELL UP TO 1800HRT COOLING CAPACITY

TRUWATER®

High Performance Crossflow Type

ISO14001 CERTIFIED

ISO9001 CERTIFIED

CTI CERTIFIED

SINGAPORE GREEN BUILDING PRODUCT SGBC GOOD

PROVEN PERFORMANCE • RELIABILITY • EASY INSTALLATION

EX-S SERIES COOLING TOWER

SINGLE-CELL UP TO 2950HRT COOLING CAPACITY

TRUWATER®

INTRODUCTION

EX-S Series is an induced draft cross-flow, film filled, FRP multi-cell rectangular cooling tower designed for the equipment cooling, and industrial process cooling and air conditioning applications.

The EX-S Series Cooling Tower is designed to meet maximum performance and reliability, and minimum maintenance.

The thermal performance of EX-S Series has been certified by CTI in accordance with CTI Standard STD-201.

EX-S Series Cooling Towers are designed and provided with high quality V-belt & pulley drive system or right-angle gear reducer drive system for more reliable operation.

ADVANTAGES

Proven Reliability

EX-S Series Cooling Towers have been installed in many applications. Customer satisfaction is testified by its long list of proven installations.

Energy Saving

The low speed, high efficiency fan and low pressure drop fill design to optimize the energy consumption.

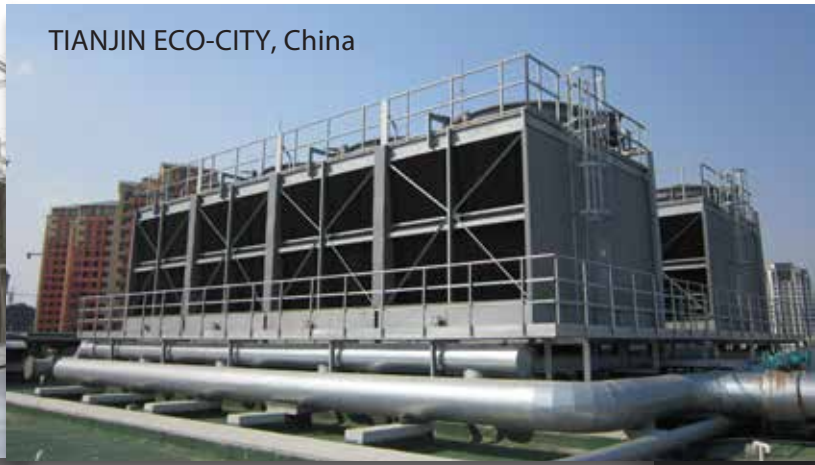
High Efficiency Drift Eliminator

The efficient drift eliminators remove entrained water droplets from the air stream to less than 0.005%.

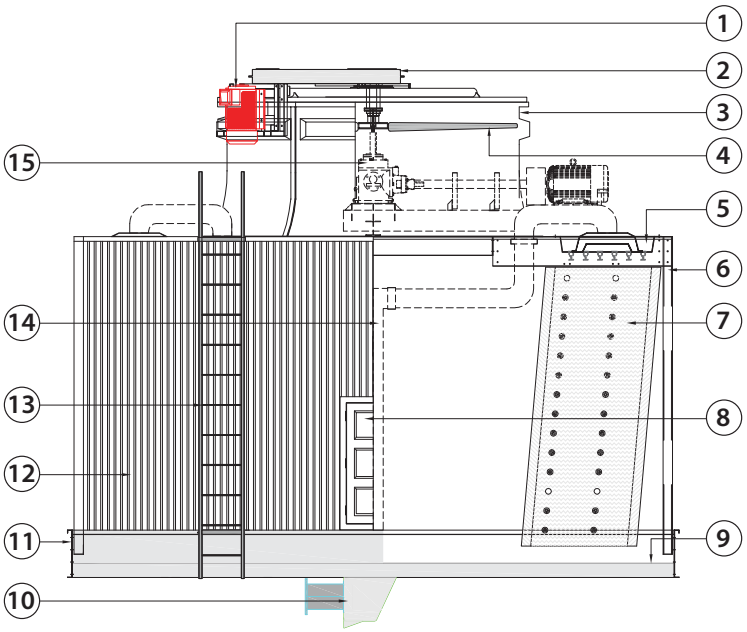
Proven Corrosion Protection

Tower components are made of anti-corrosive material suitable for cooling water application.

UMC, Singapore



TIANJIN ECO-CITY, China



No	Description	Material / Specification
1	Motor	Weather Proof TEFC Type
2	V-Belt and Pulley System	FRP Pulley Cover
3	Fan Stack	FRP
4	Fan Assembly	Aluminium Alloy
5	Hot Water Basin	FRP
6	Main Frame Structure	HDGS Steel
7	High Performance Fill Pack	PVC
8	Inspection Door	FRP
9	Cold Water Basin Floor	FRP
10	Suction Sump	FRP
11	Cold Water Basin Frame	HDGS Steel
12	Casing	FRP
13	Ladder	HDGS Steel
14	Internal Piping	Optional
15	Gear Reducer System	Optional

Model Definition Example

EX | S | 0912 | U/V/W | C | – | 1 | B | S | M

- EX-S Series
- **Structure Material**
  - S = HDG Steel
  - F = FRP Pultruded
  - T = Timber
  - X = Stainless Steel
- Norminal Cell Size
- Infill Type
- Motor Size
- No. of Cell(s)
- B = Belt & Pulley Drive
  G = Gear Reducer Drive
- S = Super Low Noise
  U = Ultra Low Noise
- I = Internal Piping
  A = Additional Items
  M = Modification / Non CTI Listed


PEPSICO, Thailand


Uptown PJ, Malaysia

EX-S SERIES CROSSFLOW COOLING TOWER SPECIFICATION

Gear Reducer Drive System

Make Up Water Line

TRUWATER®

1.0 GENERAL

The cooling tower shall be induced-draft vertical discharge type, crossflow, rectangular, film filled, FRP Cooling Tower. It shall be designed with high efficiency drift eliminators to meet current environmental standards and guidelines for microbial control.

2.0 CAPACITY

Cooling Tower shall be capable of providing the thermal performance scheduled.

3.0 PERFORMANCE WARRANTY

The rated capacity shall be certified by the Cooling Tower Institute (CTI). The cooling tower manufacturer shall guarantee that the tower supplied will meet the specified performance conditions when the tower is installed according to plans.

4.0 CONSTRUCTION

The cooling tower main frame structure shall be hot dip galvanized steel (HDG). The casing shall be made from Fibre Reinforced Plastic (FRP).

5.0 MECHANICAL EQUIPMENT

5.1 Fan(s) shall be propeller-type, incorporating heavy-duty blades of aluminum alloy. Blades shall be individually adjustable.

5.2 The V-belts shall be of rubber with fabric impregnated able to withstand the adverse ambient conditions of 50°C and 100% R.H. The pulleys shall be cast iron with the grooves of standard dimensions. The entire V-belt & pulley set must be fully enclosed in a FRP molded case to protect the v-belts from in contact with the humid discharge air.

5.3 Motor(s) shall be TEFC, weatherproof sq. caged induction type suitable for 3ph/50Hz/415V power supply and with 1450rpm.

6.0 FILLS, LOUVERS AND DRIFT ELIMINATORS

6.1 Fill shall be high efficiency film-type, rigid, corrugated PVC sheets with integral louver and drift eliminator that are conducive to cooling tower and UV protected.

6.2 Fills shall be resistance to rot, decay and biological attack with maximum flame-spread rating of 25 according to ASTM E84. Fill sheets shall be hanging type with structural tubing supported from the upper tower structure.

6.3 Drift eliminators shall be efficient enough to effectively limit drift loss to 0.005% of the designed flow rate.

7.0 HOT WATER DISTRIBUTION SYSTEM

An open basin above the fill bank shall receive hot water piped to each cell of the tower. Water shall enter the basin through a removable splash box. Removable and replaceable polypropylene nozzles installed in the floor of the basin shall provide full coverage of the fill by gravity flow.

8.0 COLD WATER BASIN

The cold water basin shall be of FRP and supported on HDG steel framework. The basin shall be designed with sufficient water capacity to avoid air entrainment in the outlet during operating conditions. The basin shall be equipped with suction strainer, make-up ball valve, overflow and drain. For multiple tower arrangement, equalizing pipes between basins shall be provided to maintain the same level of water in each basin.

9.0 ACCESS AND SAFETY

Ladder shall be provided for inspection & maintenance purposes. HDG steel fan guard shall be provided over each fan cylinder.

Belt & Pulley Drive System

Inlet Louver

...providing solution to your cooling needs

Member

TRUWATER®

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