LIANG CHI INDUSTRY (THAILAND) CO.,LTD.

LCX SERIES

Closed Circuit Cooling Tower

Energy Saving

LCX SERIES

Closed circuit cooling tower equipped with stainless steel casing, heat exchanger coil and water sump replenishment system. Aluminium alloy fan blade and Alu Zinc fan stack. High grade PVC sprinkler system with ABS nozzle.

** **Option**

- Safety Hand Rail
- Ladder With Safety Cage
- Hood

Stainless Steel Coil

CLEAN

Stainless Steel Casing

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Liang Chi QR Code

Product Specification

01 FAN

The fan drive system is the main component that allows heat transfer within the cooling tower, by pulling in cool ambient air and discharging saturated hot wet air. The frame is made of durable stainless steel mesh with Alu-Zinc fan stack. The blade is made of lightweight aluminium alloy giving it low noise and high transmission efficiency. The fan drive system is designed to be in line with the aerodynamics principle, making use of the air flow field theory to reduce the flow resistance. This can reduce the air outlet kinetic energy loss up to 34% and will improve the air flow and fan efficiency while also reducing power consumption.

02 Cooling Coil

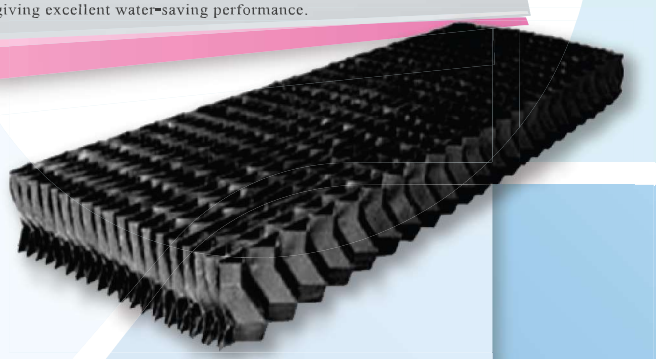
The cooling coil is the key component of the closed circuit cooling tower as it holds the useful water and acts as a cooling medium between the useful water and the external wind and cooling water spray. This allows the useful water to be protected within the coil from the outside environment to ensure the water quality. Our cooling coil is made of stainless steel to provide durability and a long service lifetime.

03 SPRAY SYSTEM

The spray system consists of spray pumps, PVC connecting pipes, PVC sprinkler pipes and ABS nozzles. When the water outlet temperature exceeds the requirement, the system control automatically turn on the sprinkler system to aid with the heat transfer and help cool down the outlet water to meet the required temperature. Low-lift spray pumps are used to ensure a high flow rate and low water pressure. Couple this with low friction pipes to give the best water distribution through the nozzles and cause the least damage to nozzles. The nozzles are made of injection molded ABS equipped with rubber seals and designed to ensure the durability, long service life, uniform water distribution, good water droplet profile and the best cooling effect.

04 ELIMINATORS

The main role of the eliminators is to reduce the drift loss (water droplets being pulled out by the fan) and re-capture the cooling water so it can be re-circulated through the sump. UPVC is used as the material of our eliminators. The eliminators are designed to ensure minimum static pressure to give suitable air flow and efficient ventilation, while not compromising its ability to re-capture water droplets. Our eliminators can achieve a drift loss of 0.01% giving excellent water-saving performance.



** Option

- Safety Hand Rail
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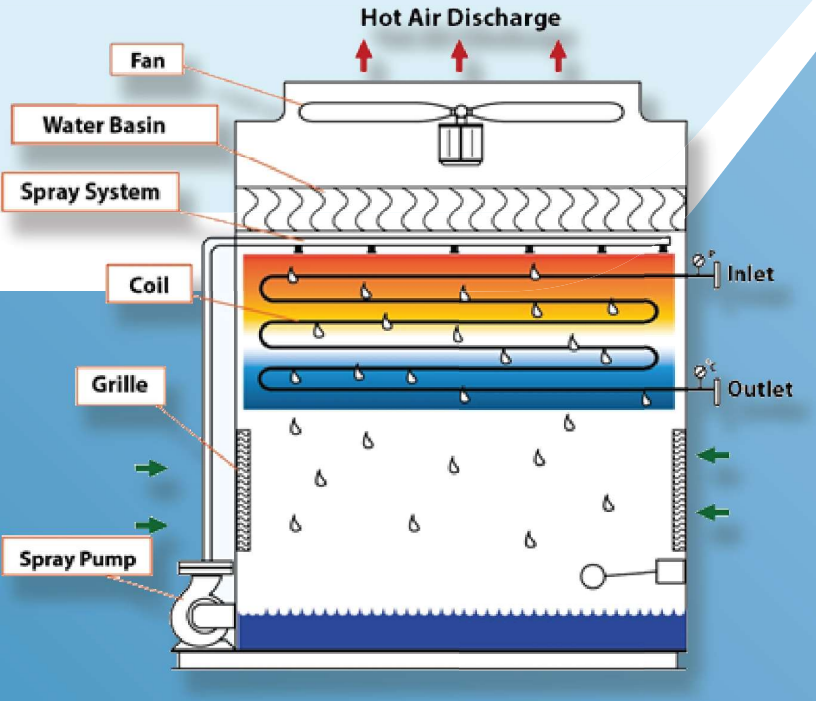

Principle Of Operation

CLOSED CIRCUIT COOLING TOWER LCX SERIES		
GENERAL DESIGN	Application	Close loop circulating system
	Coil inner liquid type	Pure water / Glycol or other anti-frozen
	Inlet coil liquid temperature	37 °C
	Outlet coil liquid temperature	32 °C
	Wet Bulb Temperature	28 °C
MAECHANICAL PART	Fan type	Axial
	Fan material	Aluminium Alloy
	Fan Speed	480
	Motor Power	380V/3Ø/50Hz
	Motor water proof/Insulation class	IP55
	Motor protection class	F LEVEL
SPRAY WATER SYSTEM	Spray cooling water quality	Tap water
	Nozzel Specification	Large-caliber, solid cone water distribution
	Nozzel Material	ABS
	Filter specifics	thermal tranfer, eliminate, Low air
	Filter material	Flame retardant PVC
	Water collection device (coil section)	Fully enclosed with water collection device
	Spray pump water Shelter	SUS-304
	Spray pump power	380V/3Ø/50Hz
	Spray pump water proof/Insulation class	IP55 / F Level
MATERIAL	Coil Material	SUS-304
	Coil Specifics	tube dia. 19mm, tube wall thickness 1.0 mm
	Coil support	SUS-304
	Wall panel	SUS-304
	Connecting bolts	SUS-304

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