PRODUCT RANGE

DESCRIPTION	UNIT	CCCT10	CCCT 30	CCCT 50	CCCT 70	CCCT 90	CCCT 110	CCCT 130	CCCT 150	CCCT 170
FLUID FLOW	m3/hr	10	30	50	70	90	110	130	150	170
HEAT REJECTION	TR	17	50	83	116	149	182	215	248	281

DESCRIPTION	UNIT	CCCT 190	CCCT 210	CCCT 230	CCCT 250	CCCT 270	CCCT 290	CCCT 310	CCCT 330	CLCT 350
FLUID FLOW	m3/hr	190	210	230	250	270	290	310	330	350
HEAT REJECTION	TR	314	347	380	413	446	479	512	545	578

* Heat rejection considering range of 5 deg C
* Please contact Thermax representative for suitable selection of the equipment based on the site conditons and application

FOOTPRINTS – PROCESS COOLING

CHEMICAL
Beach Minerals Company Ind. Ltd.
United Phosphorous Limited

DAIRY
Heritage Foods Limited
Uttam Dairy
Dollon's Food Products (P) Ltd
Farmgate Agro Milch Pvt Ltd
Nature Delight Dairy

EPC
Rinac India Limited
Frigosacn

F&B
Coca Cola Breweries Limited
Ces Food Engineering Pvt. Ltd. [UB]
REXAM Beverage Can (INDIA) Pvt. Ltd, Ball Corp.
Innovative Food Products

MEAT PROCESSING
Kwality Animal Feeds
AOV Exports

PHARMACEUTICAL & PIGMENTS
Frater-Razes Laboratories
Micro Ink - Huber Group

POWER & STEEL
Southern Energy Dev. Corp. Ltd
G.P. Energy
Jindal Steel Works Limited

FISHERIES
V.V.Marine Products
Abad Fisheries
High Seas Exim
Torry Harris
Orchid Marine
Gadre Marine

POLYFLIMS & PLASTIC
Ultimate Flexi Pack Ltd
Montage Enterprises Pvt Ltd.
Uflex
SRF
Unimold TCA
Goplas, S.A De C.V

THERMAX

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THERMAX

CLOSED LOOP COOLING TOWER

LOW ENERGY CONSUMPTION

LOW INSTALLED COST

LONG SERVICE LIFE

ZERO MAINTENANCE

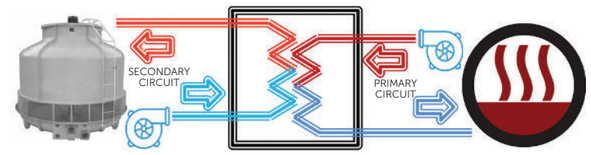
CLOSED LOOP COOLING TOWER

Closed loop cooling tower operate in the manner similar to open cooling towers, except that the heat load to be rejected is transferred from the process fluid (refrigerant gas / water / process oil / working fluid being cooled) to the water and ambient air through a heat exchange coil. The coil serves to isolate the process fluid from the outside air, keeping it clean and contamination free in a closed loop, thus creating two separate circuits

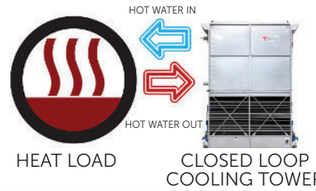
- Primary / Internal circuit in which the process fluid / gas circulates inside the coil
- Secondary / External circuit sprays circulates water over the coil & mixes with outside air

OPTIMISED DESIGN

CONVENTIONAL SYSTEM



SYSTEM WITH CLOSED LOOP COOLING TOWER



Cooling System using a Closed loop cooling tower is far simpler when compared with conventional system. The Primary circuit is identical to the conventional system whereas the cooling tower, secondary pumps, plate heat exchangers and piping & valves of the conventional Secondary Circuit are replaced with a closed loop cooling tower. The CLCT has a built in heat exchanger that replaces the Plate Heat Exchanger and a built in spray pump replaces the bulky secondary pumps & interconnecting piping. All this is packaged in a box.

BENIFITS

RELIABILITY

- Continuous tube with no joints for better heat transfer
- Electronic Descaling device for trouble free operation

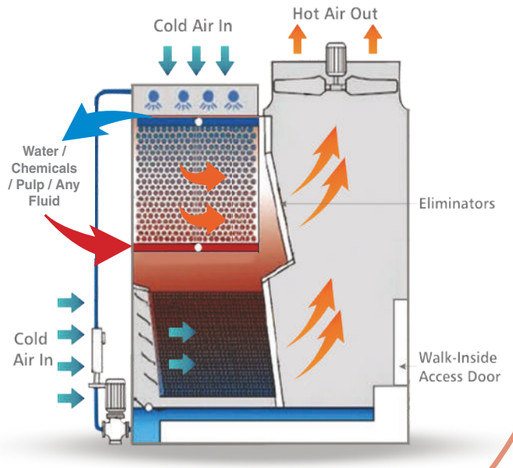
EFFICIENCY

- Flim fills for optimal air & Water usage with lowest material & Space
- Honeycomb PVC Wet deck design for most efficient evaporation

MAINTENANCE

- Side access door for easy online maintenance
- Robust corrosion resistant structural material for long life

OPERATING PRINCIPLE



1. The process fluid is circulated through the coil of the closed loop cooling tower.
2. Heat from the process fluid is dissipated through the coil tubes.
3. Part of the heat is removed directly by the downward natural induced air and discharged to the atmosphere.
4. Rest of the heat is rejected to the water cascading down over the tubes.
5. Simultaneously, air is drawn in through the air inlet louvers at the base of the condenser and travels through the drift eliminator and heat exchange fills in the same direction of the water flow.
6. A small portion of the water is evaporated which removes the heat. The warm moist air is drawn sidewise by the fan and is discharged to the atmosphere.
7. The remaining water is collected in the sump at the bottom of the condenser. The spray pump recirculates the water into the distribution system, forming a fine spray which then cascades over the coil.

WHY THERMAX CLOSED LOOP COOLING TOWER

TCLCT offers unmatched flexibility, providing optimized selections based on footprint, horsepower, pressure drop and price. Utilizing advanced Coil Technology, Thermax provides the most energy efficient fluid cooler in the market.

- Wide Range Of Thermal Duties — Ideal for applications requiring close approaches and/or a large range.
- Retro Fit & Replacement— Single air inlet models are designed and fit into the existing system.
- Selection Customization — Can optimize the pressure drop, footprint and horsepower requirements suit project requirements