

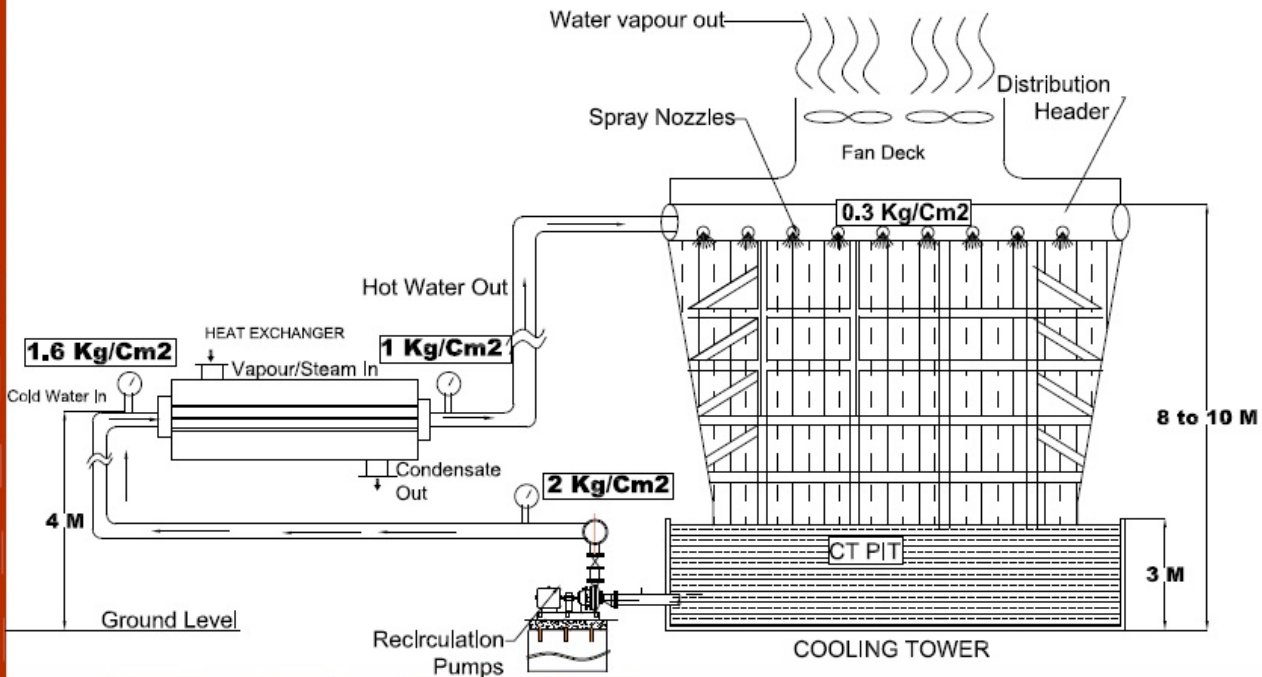
**COMPARISON TABLE BETWEEN
INDUCED DRAFT COOLING TOWER / FAN LESS COOLING TOWER &
LOUVER TYPE MIST COOLING SYSTEM**

Sr. No.	Feature	Induced Draft Cooling Tower (IDCT)	Fan less / Jet Cooling Tower	Louver Type Mist Cooling System
1	Approach to WBT	4 to 5 degrees.	6 to 8 degrees.	1 to 2 Degrees.
2	Temperature Drop	8 to 10 Degrees	6 to 8 Degrees	Regular: 12 Degrees. Advanced Model guarantees up to 40 Degree C in a single stroke
3	POWER CONSUMED (Comparison for a 1000 m ³ /hr circulation flow assuming IDCT's Total Power as 100%) (Please refer Diagram PLAN-A & PLAN-B on Page No. 2)	100 HP : 100% (70 HP : 100% on Pumping & 30 HP : Fan)	100 HP : 100% (100 HP : 140% on Pumping & 00 HP : Fan)	70 HP : 70% (70 HP : 100 % on Pumping & 00 HP : Fan)
4	Nozzles	Ordinary type which choke frequently	Ordinary Jet type which choke frequently	Special whirling type, choke-less design incorporating non-moving parts with 25 mm bore opening.
5	Water droplet size	5 mm	2 to 3 mm	Atomized to 5 to 50 Microns
6	Travel time	Less due to Downward fall only.	Less due to Downward fall only.	Two time travel due to upward & downward travel leads to Double air retention time
7	Fills/ fins	Various types used - prone to scaling, need Periodical changing	Various types used - prone to scaling, need Periodical changing	ABSOLUTELY NO FILLS / NO FINS REQUIRED.
8	Drift Loss	Same	Same	Same
9	Make Up Water	same	same	Same due to similar hold up.
10	Flexibility	Limited	Limited	Individual Line Isolation offers max. flexibility to use capacity as per requirement.
11	Standby	Required	Not Required.	Not Required.
12	Erection/delivery	Substantially high	Low	Fairly less
13	Maintenance	Very high due to replacement of fills/ fins/ fan blades etc. Also due to deposition of dust on fills, efficiency reduces with time.	Very high due to replacement of fills/ fins etc. Also due to deposition of dust on fills, efficiency reduces with time.	Negligible maintenance due to choke less operation and non-moving parts.
14	Aesthetics	Bulky, Generally most neglected part in a Plant	Untidy	Appears Fresh and Dynamic resembling active water like fountain
15	Civil Construction	Heavy due to static and dynamic load	Less	Simple due to table top construction with static load
16	Total Footprint	Less	Higher than CT	* More by 2 to 4 times to IDCT

* **Note; As capacity (Flow, M3/Hr) through MCS increases, ratio of area required between MCS and CT reduces.**

COMPARISON BETWEEN CIRCULATION WATER CYCLE IN INDUCED DRAFT COOLING TOWER V/S MIST COOLING SYSTEM SHOWING REQUIREMENT OF SAME INLET WATER PRESSURE FOR BOTH SYSTEMS

PLAN A : HEAT EXCHANGER WITH COOLING TOWER



PLAN B : HEAT EXCHANGER WITH MIST COOLING SYSTEM

