



PT. LIANG CHI INDONESIA

Cooling Tower

LRC-H

SQUARE CROSS FLOW COOLING TOWER



CONSTRUCTION AND FEATURES :

Inlet Louver & Side Plate

PVC Inlet louvers and FRP side plates are anti-acid, anti-alkaline, weather-proof, anti-corrosive and resistant to Ultra-Violet, none-twisted and non-deformed

Water Sump

The water sump is made of FRP material and externally supported with hot-dipped-galvanized steel. The piping of water sump includes outlet water, auto filler pipe, quick filler pipe, over-flow pipe and drain pipe. The stainless steel suction strainer is installed on outlet pipe to block the alien objects from entering. The basin partitions can be additionally installed for multiple cells so that the tower can be cleaned or maintained for the individual cell or partially, without affecting the operation of the whole system.

Plenum

The cross flow type's heat exchanging process is applied. The direct contact between vertical air from both sides and the falling water from hot water basin occurs inside the PVC fillings so that the heat can be rejected from the tower by the fan. The access door and walkway equipped inside the tower are to insure the convenience of maintenance and cleaning.

Motor

Outdoor TEFC motors are applied.

Fan & Driving Unit

The axial fan design is applied and can be adjusted based on actual operation of air volume. The speed reducer is driven with multi-belts to insure that there is larger contact area, low vibration and smooth transmission. The belts are protected with FRP casing so that they are not wetted and not gliding.

Filling

PVC fillings are vacuum-formed and glued together on nipple ends so that there is adequate space to avoid scaling and clogging. Thus, the water can be evenly distributed to insure good heat exchanging of cooling towers. Each layer of filling block has steel supporters to prevent from deforming and falling off. The bottom are designed with suspended supporters to avoid depositing various objects and scaling so that cooling towers can be ease of maintenance and cleaning.

Distribution System

Hot water basins are installed on two sides of tower and distribution water is gravitationally falling into tower with low water pressure. This design leads the water to spread into the fillings evenly and achieve the best efficiency of heat exchanging. FRP distribution box inside can lower the inlet water pressure to prevent the water from splashing.

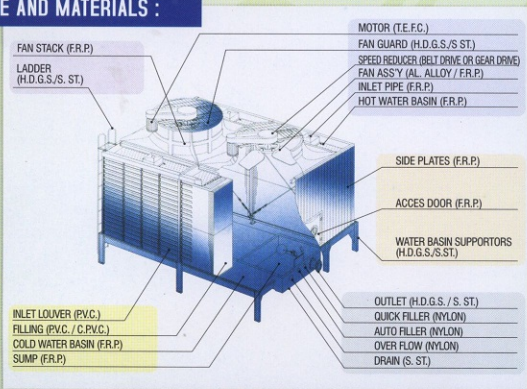
Float Valve Ass'y

Bronze Float valve ass'y is equipped inside the water basin and adjustable for controlling normal water level during operation.

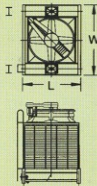
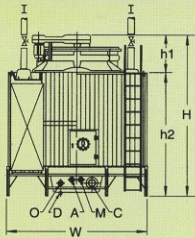
Water Eliminators

The Z type water eliminators placed on the top of filling have best water elimination efficiency and are capable to save the make-up water by reducing drift loss.

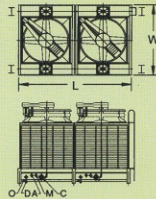
PROFILE AND MATERIALS :



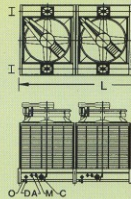
DIMENSIONS AND STANDARD SPECIFICATIONS :



LRC-H-80-250



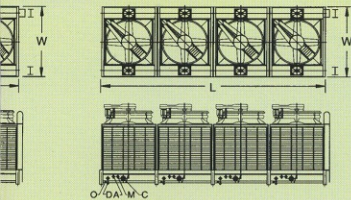
LRC-H-300-500



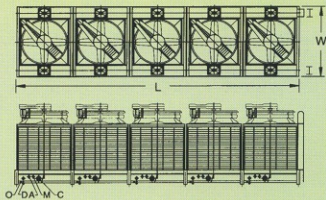
LRC-H-600

Tower Model LRC-H	Nominal Water Flow l/min	Dimensions mm (inch)					Fan Dia m/m	Fan Mo HP
		Width m/m	Length m/m	Height				
				(h ¹) m/m	(h ²) m/m	(H) m/m		
-80	1,040	2,635	1,470	820	2,850	3,670	1,200	2X1
-100	1,300	2,635	1,670	820	2,850	3,670	1,300	3X1
-125	1,625	2,835	1,870	810	2,850	3,660	1,500	5X1
-150	1,950	2,835	2,070	810	2,850	3,660	1,500	5X1
-175	2,275	3,035	2,275	880	2,850	3,730	1,700	7½X1
-200	2,600	3,135	2,475	880	2,850	3,730	1,800	7½X1
-225	2,925	3,335	2,575	880	2,850	3,730	2,000	7½X1
-250	3,250	3,335	2,875	880	2,850	3,730	2,000	10X1
-300	3,900	2,835	4,075	810	2,850	3,660	1,500	5X2
-350	4,550	3,035	4,485	880	2,850	3,730	1,700	7½X2
-400	5,200	3,135	4,885	880	2,850	3,730	1,800	7½X2
-450	5,850	3,335	5,085	880	2,850	3,730	2,000	7½X2
-500	6,500	3,335	5,685	880	2,850	3,730	2,000	10X2
-600	7,800	3,135	7,295	880	2,850	3,730	1,800	7½X3
-700	9,100	3,335	7,595	880	2,850	3,730	2,000	7½X3
-800	10,400	3,135	9,705	880	2,850	3,730	1,800	7½X4
-900	11,700	3,335	10,105	880	2,850	3,730	2,000	7½X4
-1000	13,000	3,335	11,305	880	2,850	3,730	2,000	10X4
-1125	14,625	3,335	12,615	880	2,850	3,730	2,000	7½X5
-1250	16,250	3,335	14,115	880	2,850	3,730	2,000	10X5

- Nominal Tons are defined as 13l/min/Ton, Cooled from 37°C to 32°C with 27°C wet bulb temperature.
- Total pump head required for cooling water circulation pump is the sum of condensed water pressure drop, piping friction loss and tower head.



LRC-H-800-1000



LRC-H-1125-1250

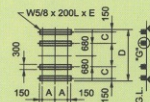
Pipe Connection mm						Approx.		Tower Head *2
Inlet	Outlet	Drain	Over Flow	Auto Filter	Quick Filler	Dry Wt.	Operating Wt.	
(I)	(C)	(D)	(O)	(A)	(M)	kg	kg	M
3B(80A)X2	4B(100A)	2B(50A)	2B(50A)	¾B(20A)	¾B(20A)	710	1940	3.7
3B(80A)X2	5B(125A)	2B(50A)	2B(50A)	1B(25A)	1B(25A)	750	2050	3.7
4B(100A)X2	5B(125A)	2B(50A)	2B(50A)	1B(25A)	1B(25A)	800	2220	3.7
4B(100A)X2	6B(150A)	2B(50A)	2B(50A)	1B(25A)	1B(25A)	850	2320	3.7
5B(125A)X2	6B(150A)	2B(50A)	2B(50A)	1B(25A)	1B(25A)	970	2670	3.8
5B(125A)X2	8B(200A)	2B(50A)	2B(50A)	1¼B(32A)	1¼B(32A)	1030	2830	3.8
5B(125A)X2	8B(200A)	2B(50A)	2B(50A)	1¼B(32A)	1¼B(32A)	1120	3170	3.8
5B(125A)X2	8B(200A)	2B(50A)	2B(50A)	1¼B(32A)	1¼B(32A)	1200	3370	3.8
5B(100A)X4	8B(200A)	2B(50A)	2B(50A)	1¼B(32A)	1¼B(32A)	1600	4040	3.7
5B(125A)X4	6B(150A)X2	2B(50A)X2	2B(50A)X2	1B(25A)X2	1B(25A)X2	1840	5240	3.8
5B(125A)X4	8B(200A)X2	2B(50A)X2	2B(50A)X2	1¼B(32A)X2	1¼B(32A)X2	1960	5560	3.8
5B(125A)X4	8B(200A)X2	2B(50A)X2	2B(50A)X2	1¼B(32A)X2	1¼B(32A)X2	2140	6240	3.8
5B(125A)X4	8B(200A)X2	2B(50A)X2	2B(50A)X2	1¼B(32A)X2	1¼B(32A)X2	2300	6640	3.8
5B(125A)X6	8B(200A)X2	2B(50A)X2	2B(50A)X2	1¼B(32A)X2	1¼B(32A)X2	2890	7790	3.8
5B(125A)X6	8B(200A)X3	2B(50A)X3	2B(50A)X3	1¼B(32A)X3	1¼B(32A)X3	3160	9310	3.8
5B(125A)X8	8B(200A)X3	2B(50A)X3	2B(50A)X3	1¼B(32A)X3	1¼B(32A)X3	3820	10520	3.8
5B(125A)X8	8B(200A)X3	2B(50A)X3	2B(50A)X3	1¼B(32A)X3	1¼B(32A)X3	4180	11880	3.8
5B(125A)X8	8B(200A)X3	2B(50A)X3	2B(50A)X3	1¼B(32A)X3	1¼B(32A)X3	4500	12680	3.8
5B(125A)X10	8B(200A)X4	2B(50A)X4	2B(50A)X4	1¼B(32A)X4	1¼B(32A)X4	5200	14950	3.8
5B(125A)X10	8B(200A)X4	2B(50A)X4	2B(50A)X4	1¼B(32A)X4	1¼B(32A)X4	5600	15950	3.8

3. Make-up water inlet pipe of 1¼B(32A) is joined with outside piping connector of 1¼B(40A).

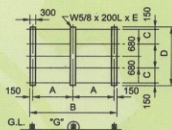
4. We reserve the right to make change in the specifications and dimensions without notice.

RECOMMENDED CONCRETE FOUNDATIONS :

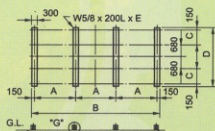
Item	A	B	C	D	E
LRC-H-80	702.5	1705	635	2930	8
100	802.5	1905	635	2930	8
125	902.5	2105	735	3130	8
150	1002.5	2305	735	3130	8
175	1105	2510	835	3330	8
200	1205	2710	885	3430	8
225	1255	2810	985	3630	8
250	1405	3110	985	3630	8
300	2005	4310	735	3130	12
350	2210	4720	835	3330	12
400	2410	5120	885	3430	12
450	2510	5320	985	3630	12
500	2810	5920	985	3630	12
600	2410	7530	885	3430	16
700	2510	7830	985	3630	16
800	2410	9940	885	3430	20
900	2510	10340	985	3630	20
1000	2810	11540	985	3630	20
1125	2510	12850	985	3630	24
1250	2810	14350	985	3630	24



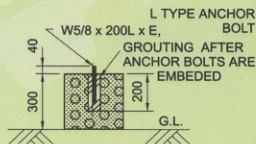
LRC-H-80-300



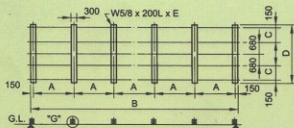
LRC-H-350-500



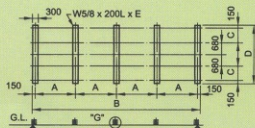
LRC-H-600-700



"G" VIEW



LRC-H-1125-1250



LRC-H-800-1000



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