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# LRC-N MODEL

## SQUARE

## CROSSFLOW

## COOLING TOWER



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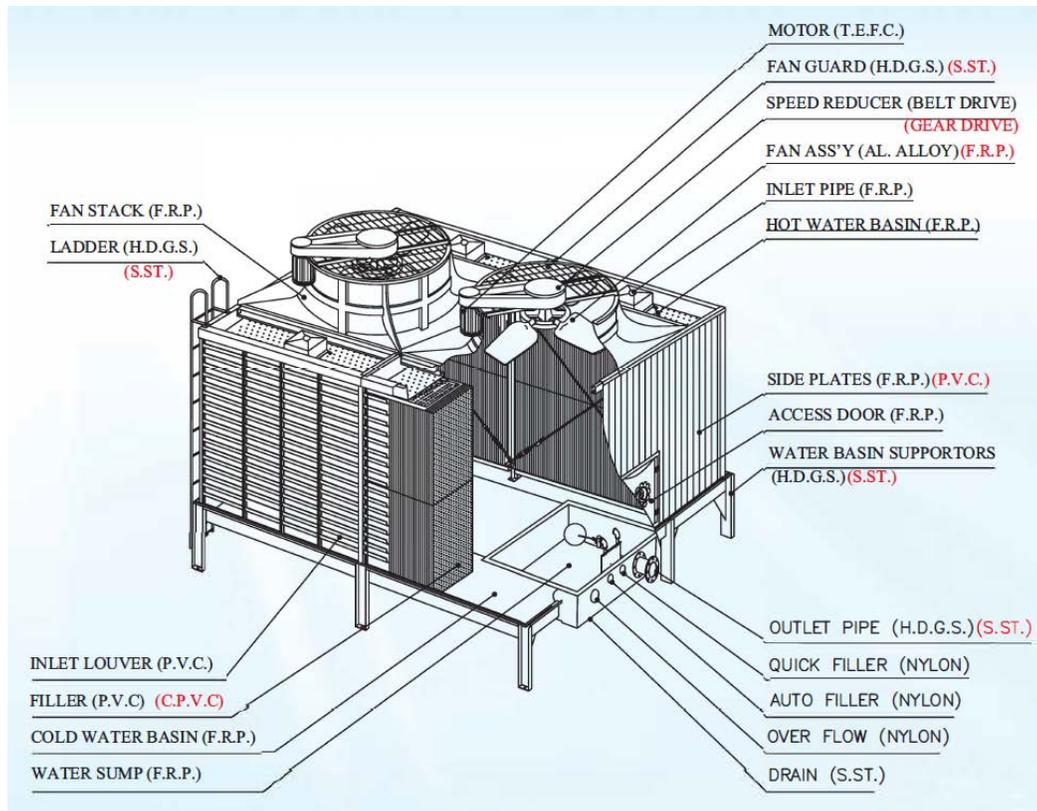
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# LRC-N Cross Flow Cooling Tower

## LRC-N-40 through 1000 Profile and Materials



### Remarks:

1. Above details are illustrating the profile, parts name and various materials of cooling tower; the black characters in the parentheses stand for standard material while the red ones mean special and optional materials. If necessary, please verify the specific material beforehand so that we can quote accordingly.
2. Below are the optional accessories and if necessary, they can be purchased additionally:
  - (a) Direct drive motor for LRC-N-125~250
  - (b) Internal piping
  - (c) Cover for hot water basin
  - (d) Ladder complete with safety cage
  - (e) Safety handrail
  - (f) Channel bases
  - (g) Vibration isolator
  - (h) Sand filter
3. Direct Drive for LRC-N-40~100  
Horizontal type belt drive speed reducer for LRC-N-125~250  
Vertical type belt drive speed reducer for LRC-N-300~1000

# LRC-N Cross Flow Cooling Tower

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## LRC-N-40 through 1000 Structure and Feature

### Inlet Louver & Side Plates

PVC inlet louver and FRP sides are anti-acid, anti-alkaline, weather-proof, anti-corrosive, resistant to Ultra-violet, non-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, overflow pipe and drain pipe. The stainless steel suction strainer is installed on outlet pipe to blockage 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 heat exchanging process of cross flow type is applied. The direct contact between horizontal air from both inlet 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 the air volume can be adjusted based on actual operation. The speed reducer is driven with multi-belts to insure large 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. Each layer of filling blocks 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.

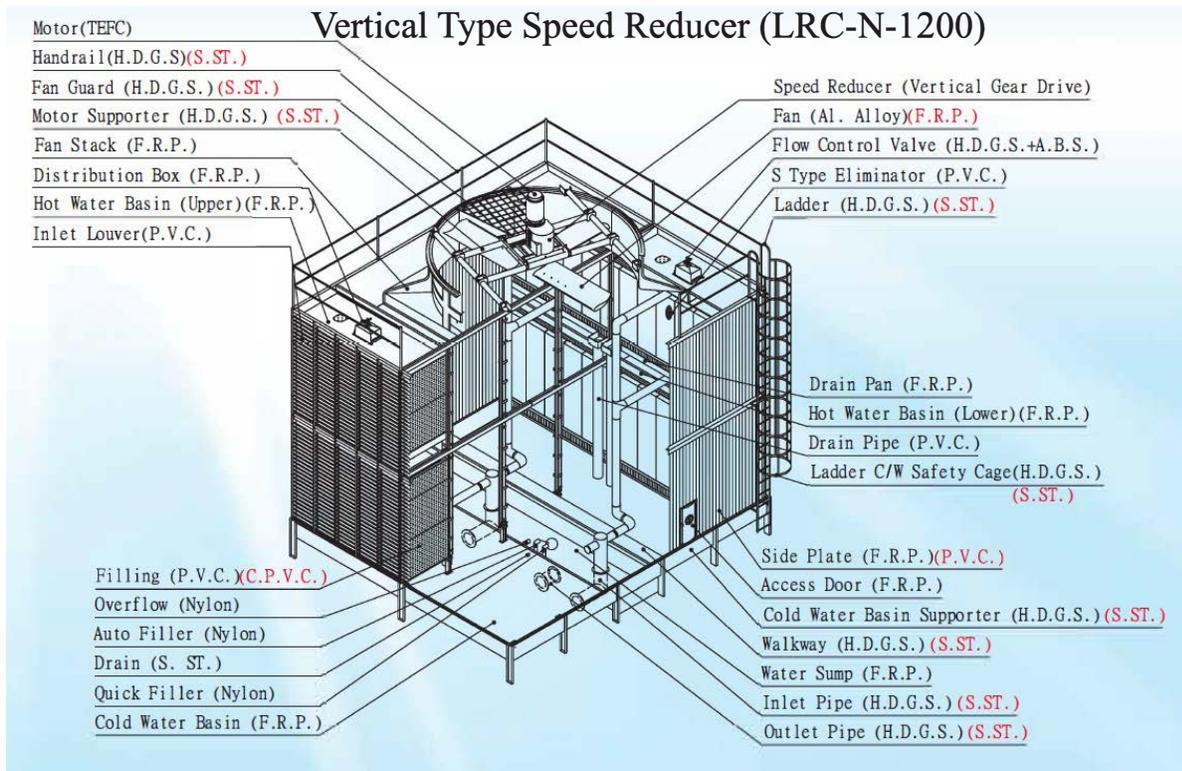
### Float Valve Ass'y

The 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 are placed on the top of filling to insure best water elimination efficiency and help to save the makeup water by reducing drifting loss.

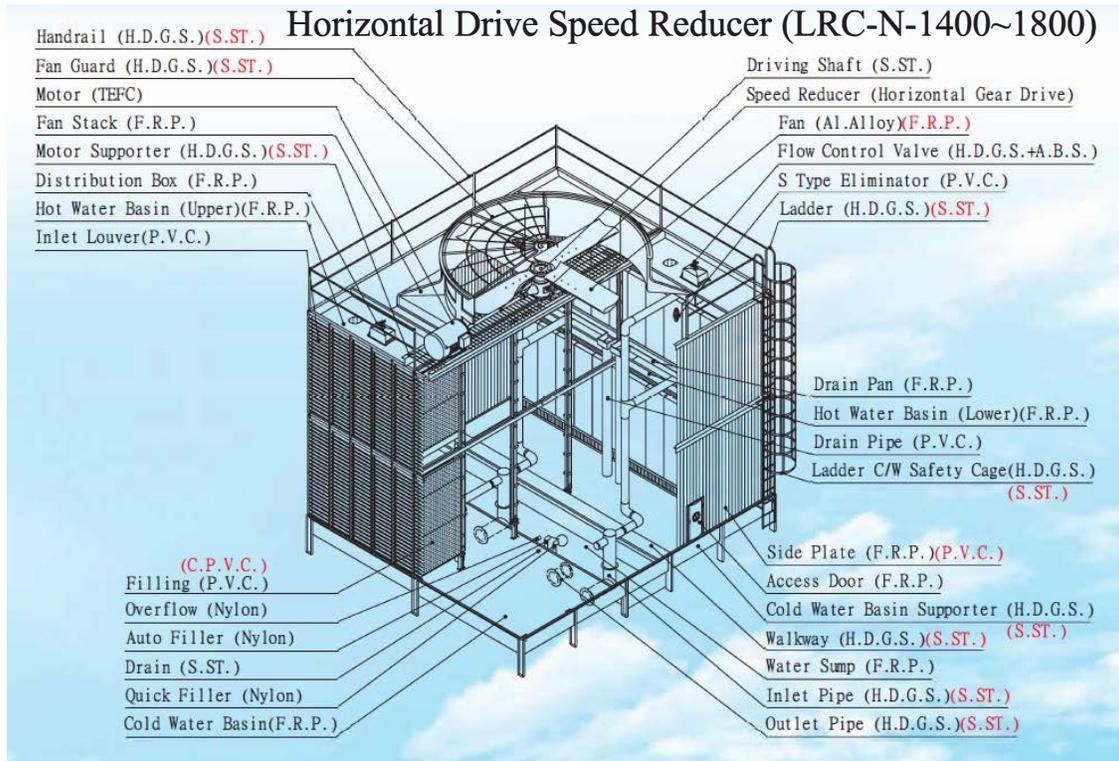
## LRC-N-1200 through 1800 Structure and Feature



### Remarks:

1. Above details are illustrating the profile, parts name and various materials of cooling tower; the black characters in the parentheses stand for standard material while the red ones mean special and optional materials. If necessary, please verify the specific material beforehand so that we can quote accordingly.
2. Below are the optional accessories and if necessary, they can be purchased additionally:
  - (a) Cover for hot water basin
  - (b) Channel Bases
  - (c) Vibration Isolators
  - (d) Chemical Dosing System
  - (e) Sand filter
3. LRC-N-1200 is complete with vertical gear drive speed reducer.

## LRC-N-1200 through 1800 Structure and Feature



### Remarks:

- Above details are illustrating the profile, parts name and various materials of cooling tower; the black characters in the parentheses stand for standard material while the red ones mean special and optional materials. If necessary, please verify the specific material beforehand so that we can quote accordingly.
- Below are the optional accessories and if necessary, they can be purchased additionally:
  - Cover for hot water basin
  - Channel Bases
  - Vibration Isolators
  - Chemical Dosing System
  - Sand filter
- LRC-N-1400~1800 are complete with horizontal gear drive speed reducer.

# LRC-N Cross Flow Cooling Tower

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## LRC-N-1200 through 1800 Structure and Feature

### Motor

Outdoor TEFC motors are applied.

### Fan

The axial fan design high efficient aluminum alloy fan is applied while FRP blades are also available upon request. Fan blades are gone through the strict balance to insure smooth operation and low noise and can be adjusted to acquire desired air volume based on actual operation.

### Speed Reducer

The speed reducer is applied with gear drive to insure the smooth transmission.

### Tower Structure

The supporting frameworks for tower body and basin are made of solid Hot Dip Galvanized Steel so that it can resist the strong wind and severe vibration.

### Plenum

The heat exchanging process of cross flow type is applied. The direct contact between horizontal air from both inlet 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.

### Distribution System

Hot water basins are installed on two sides of tower and designed with upper and lower layers of water distribution. The distribution water is gravitationally falling into tower with low water pressure. The FRP distribution box and flow control valve inside can balance the water flow of both sides and lower the inlet water pressure. This design leads the water to spread into the fillings evenly and achieve the best efficiency of heat exchanging.

### 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, overflow pipe and drain pipe. The stainless steel suction strainer is installed on outlet pipe to blockage 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.

# LRC-N Cross Flow Cooling Tower

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## LRC-N-1200 through 1800 Structure and Feature

### 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. Each layer of filling blocks 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.

### Inlet Louver & Side Plates

PVC inlet louver and FRP sides are anti-acid, anti-alkaline, weather-proof, anti-corrosive, resistant to Ultra-violet, non-twisted and non-deformed.

### Float Valve Ass'y

The bronze float valve ass'y is equipped inside the water basin and adjustable for controlling normal water level during operation.

### Drift Eliminator

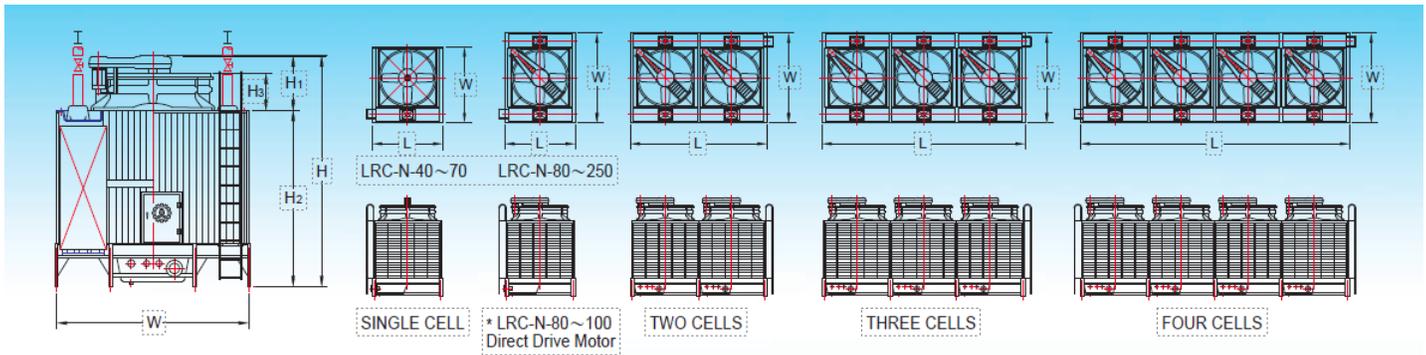
The S type drift eliminators are installed on the outer side of fillings to insure the best eliminating results and minimize the drift loss to save the water supply.

### Piping

Internal piping are applied for internally letting the inlet water pipe reach the hot water basin to avoid setting up unnecessary pipes over the cooling tower so that piping work can be more convenient and time-saving. This design leads the outlook of cooling tower to become tidy and neat and save more space.

# LRC-N Cross Flow Cooling Tower

## LRC-N-40 through 250 Structure and Feature

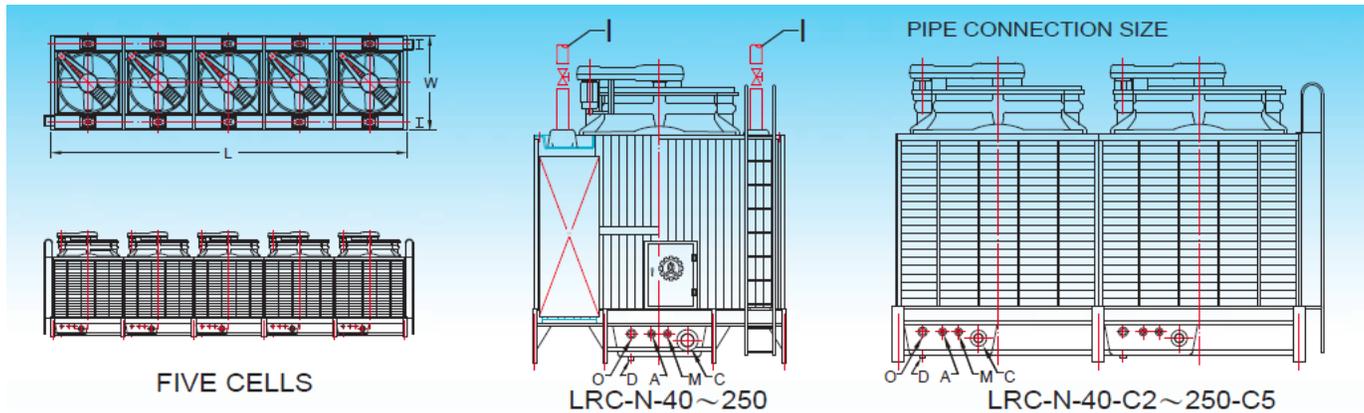


Model LRC-N	Item Water Flow Ø/min	Outline Dimensions						Driving Equipment		
		Width (W) m/m	Length (L) m/m	Height				Horsepower HP	Fan Dia. DØmm	Airflow MP/MIN/CELL
				(H) m/m	(H <sub>1</sub> ) m/m	(H <sub>2</sub> ) m/m	(H <sub>3</sub> ) m/m			
40	520	2045	1555	3515	665	2850	460	1x1	970	260
50	650	2045	1755	3515	665	2850	460	1x1	970	330
60	780	2145	1955	3625	775	2850	460	1 ½ x1	1170	420
70	910	2145	2155	3625	775	2850	460	1 ½ x1	1170	450
80	1040	2680	1555	3670	820	2850	460	2x1	1170	560
100	1300	2680	1755	3670	820	2850	460	2x1	1300	700
125	1625	2880	1955	3660	810	2850	460	5x1	1500	840
150	1950	2880	2155	3710	860	2850	460	5x1	1500	995
175	2275	3080	2360	3710	860	2850	500	7 ½ x1	1700	1135
200	2600	3180	2560	3730	880	2850	520	7 ½ x1	1800	1340
225	2925	3380	2660	3730	880	2850	520	7 ½ x1	2000	1540
250	3250	3380	2960	3730	880	2850	520	10x1	2000	1690
40-C2	1040	2045	2960	3515	665	2850	460	1x2	970	260
50-C2	1300	2045	3360	3515	665	2850	460	1x2	970	330
100-C2	2600	2680	3360	3670	820	2850	460	2x2	1300	700
125-C2	3250	2880	3760	3660	810	2850	460	5x2	1500	840
150-C2	3900	2880	4160	3710	860	2850	460	5x2	1500	995
175-C2	4550	3080	4570	3710	860	2850	500	7 ½ x2	1700	1135
200-C2	5200	3180	4970	3730	880	2850	520	7 ½ x2	1800	1340
225-C2	5850	3380	5170	3730	880	2850	520	7 ½ x2	2000	1540
250-C2	6500	3380	5770	3730	880	2850	520	10x2	2000	1690
50-C3	1950	2045	4965	3515	665	2850	460	1x3	970	330
100-C3	3900	2680	4965	3670	820	2850	460	2x3	1300	700
150-C3	5850	2880	6165	3710	860	2850	460	5x3	1500	995
200-C3	7800	3180	7380	3730	880	2850	520	7 ½ x3	1800	1340
50-C4	2600	2045	6570	3515	665	2850	460	1x4	970	330
100-C4	5200	2680	6570	3670	820	2850	460	2x4	1300	700
125-C4	6500	2880	7370	3660	810	2850	460	5x4	1500	840
150-C4	7800	2880	8170	3710	860	2850	460	5x4	1500	995
175-C4	9100	3080	8990	3710	860	2850	500	7 ½ x4	1700	1135
200-C4	10400	3180	9790	3730	880	2850	520	7 ½ x4	1800	1340
225-C4	11700	3380	10190	3730	880	2850	520	7 ½ x4	2000	1540
250-C4	13000	3380	11390	3730	880	2850	520	10x4	2000	1690
40-C5	2600	2045	7175	3515	665	2850	460	1x5	970	260
50-C5	3250	2045	8175	3515	665	2850	460	1x5	970	330
60-C5	3900	2145	9175	3625	775	2850	460	1 ½ x5	1170	420
70-C5	4550	2145	10175	3625	775	2850	460	1 ½ x5	1170	450
80-C5	5200	2680	7175	3670	820	2850	460	2x5	1170	560
100-C5	6500	2680	8175	3670	820	2850	460	2x5	1300	700
200-C5	13000	3180	12200	3730	880	2850	520	7 ½ x5	1800	1340
225-C5	14625	3380	12700	3730	880	2850	520	7 ½ x5	2000	1540
250-C5	16250	3380	14200	3730	880	2850	520	10x5	2000	1690

- Design Criteria: HWT=37°C; CWT=32°C; WBT=27°C; Water Flow Rate=13 LPM/RT
- Total Pump Head: Piping Friction Loss+Chiller Pressure Loss+Tower Head
- Other multi-cells that are not listed are also available. Please contact our local sales engineers.

# LRC-N Cross Flow Cooling Tower

## LRC-N-40 through 250 Spec and Piping

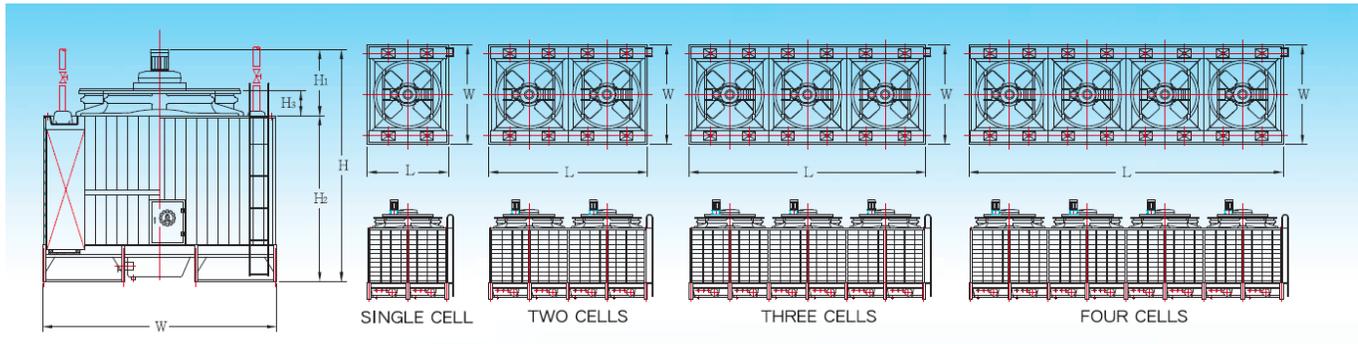


Item Model LRC-N	Dry Weight kg	Operating Weight kg	Tower Height M	Piping Size				
				Inlet Water (D)	Outlet Water (C)	Drain (D)	Overflow (O)	Make-up Auto/A/V/Manual/M
40	430	1150	3.5	3B(80A)x1	3B(80A)x1	2B(50A)x1	2B(50A)x1	1/2 B(15A)x1
50	480	1320	3.5	3B(80A)x1	3B(80A)x1	2B(50A)x1	2B(50A)x1	1/2 B(15A)x1
60	540	1520	3.5	4B(100A)x1	4B(100A)x1	2B(50A)x1	2B(50A)x1	3/4 B(20A)x1
70	620	1780	3.5	4B(100A)x1	4B(100A)x1	2B(50A)x1	2B(50A)x1	3/4 B(20A)x1
80	710	1940	3.7	3B(80A)x2	4B(100A)x1	2B(50A)x1	2B(50A)x1	3/4 B(20A)x1
100	750	2050	3.7	3B(80A)x2	5B(125A)x1	2B(50A)x1	2B(50A)x1	1B(25A)x1
125	800	2220	3.7	4B(100A)x2	5B(125A)x1	2B(50A)x1	2B(50A)x1	1B(25A)x1
150	850	2320	3.7	4B(100A)x2	6B(150A)x1	2B(50A)x1	2B(50A)x1	1B(25A)x1
175	970	2670	3.8	5B(125A)x2	6B(150A)x1	2B(50A)x1	2B(50A)x1	1B(25A)x1
200	1030	2830	3.8	5B(125A)x2	8B(200A)x1	2B(50A)x1	2B(50A)x1	1 1/4 B(32A)x1
225	1120	3170	3.8	5B(125A)x2	8B(200A)x1	2B(50A)x1	2B(50A)x1	1 1/4 B(32A)x1
250	1200	3370	3.8	5B(125A)x2	8B(200A)x1	2B(50A)x1	2B(50A)x1	1 1/4 B(32A)x1
40-C2	760	2200	3.5	3B(80A)x2	3B(80A)x2	2B(50A)x2	2B(50A)x2	1/2 B(15A)x2
50-C2	860	2540	3.5	3B(80A)x2	3B(80A)x2	2B(50A)x2	2B(50A)x2	1/2 B(15A)x2
100-C2	1400	4000	3.7	3B(80A)x4	5B(125A)x2	2B(50A)x2	2B(50A)x2	1B(25A)x2
125-C2	1500	4340	3.7	4B(100A)x4	5B(125A)x2	2B(50A)x2	2B(50A)x2	1B(25A)x2
150-C2	1600	4540	3.7	4B(100A)x4	6B(150A)x2	2B(50A)x2	2B(50A)x2	1B(25A)x2
175-C2	1840	5240	3.8	5B(125A)x4	6B(150A)x2	2B(50A)x2	2B(50A)x2	1B(25A)x2
200-C2	1960	5560	3.8	5B(125A)x4	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
225-C2	2140	6240	3.8	5B(125A)x4	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
250-C2	2300	6640	3.8	5B(125A)x4	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
50-C3	1240	3760	3.5	3B(80A)x3	3B(80A)x3	2B(50A)x3	2B(50A)x3	1/2 B(15A)x3
100-C3	2050	5950	3.7	3B(80A)x6	5B(125A)x3	2B(50A)x3	2B(50A)x3	1B(25A)x3
150-C3	2350	6760	3.7	4B(100A)x6	6B(150A)x3	2B(50A)x3	2B(50A)x3	1B(25A)x3
200-C3	2890	8290	3.8	5B(125A)x6	8B(200A)x3	2B(50A)x3	2B(50A)x3	1 1/4 B(32A)x3
50-C4	1620	4980	3.5	3B(80A)x4	3B(80A)x4	2B(50A)x4	2B(50A)x4	1/2 B(15A)x4
100-C4	2700	7900	3.7	3B(80A)x8	5B(125A)x4	2B(50A)x4	2B(50A)x4	1B(25A)x4
125-C4	2900	8580	3.7	4B(100A)x8	5B(125A)x4	2B(50A)x4	2B(50A)x4	1B(25A)x4
150-C4	3100	8980	3.7	4B(100A)x8	6B(150A)x4	2B(50A)x4	2B(50A)x4	1B(25A)x4
175-C4	3580	10380	3.8	5B(125A)x8	6B(150A)x4	2B(50A)x4	2B(50A)x4	1B(25A)x4
200-C4	3820	11020	3.8	5B(125A)x8	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
225-C4	4180	12380	3.8	5B(125A)x8	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
250-C4	4500	13180	3.8	5B(125A)x8	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
40-C5	1750	5350	3.5	3B(80A)x5	3B(80A)x5	2B(50A)x5	2B(50A)x5	1/2 B(15A)x5
50-C5	2000	6200	3.5	3B(80A)x5	3B(80A)x5	2B(50A)x5	2B(50A)x5	1/2 B(15A)x5
60-C5	2300	7200	3.5	4B(100A)x5	4B(100A)x5	2B(50A)x5	2B(50A)x5	3/4 B(20A)x5
70-C5	2700	8500	3.5	4B(100A)x5	4B(100A)x5	2B(50A)x5	2B(50A)x5	3/4 B(20A)x5
80-C5	3150	9300	3.7	3B(80A)x10	4B(100A)x5	2B(50A)x5	2B(50A)x5	3/4 B(20A)x5
100-C5	3350	9850	3.7	3B(80A)x10	5B(125A)x5	2B(50A)x5	2B(50A)x5	1B(25A)x5
200-C5	4750	13750	3.8	5B(125A)x10	8B(200A)x5	2B(50A)x5	2B(50A)x5	1 1/4 B(32A)x5
225-C5	5200	15450	3.8	5B(125A)x10	8B(200A)x5	2B(50A)x5	2B(50A)x5	1 1/4 B(32A)x5
250-C5	5600	16450	3.8	5B(125A)x10	8B(200A)x5	2B(50A)x5	2B(50A)x5	1 1/4 B(32A)x5

- If the pipe diameter is to change or equalized pipes are required, please contact our local sales engineer in advance.
- External piping size (dia) for make-up pipe 1 1/4B(32A) is 1 1/2B(40A)

# LRC-N Cross Flow Cooling Tower

## LRC-N-300 through 1000 Outline and Spec

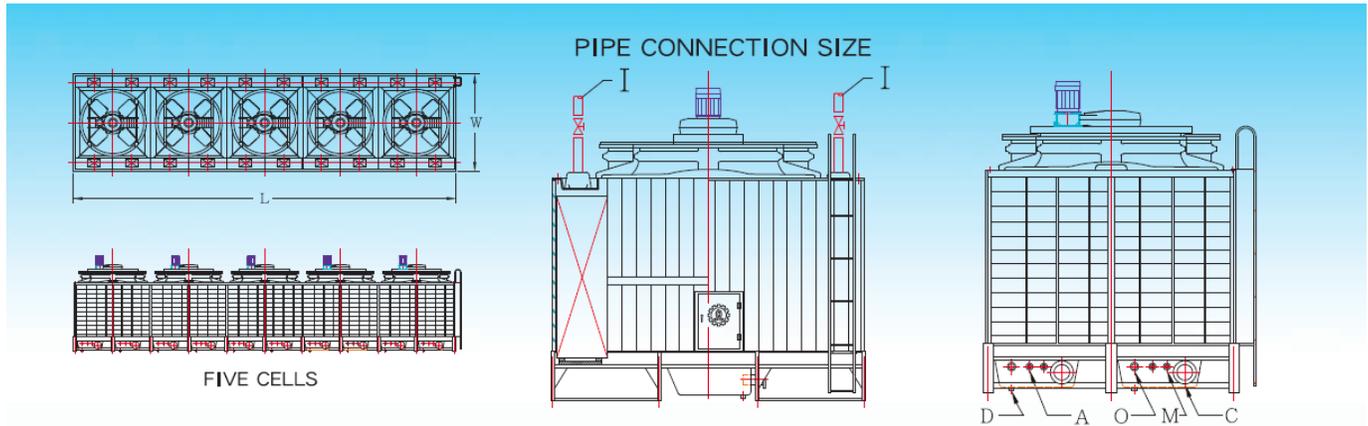


Item Model LRC-N	Water Flow g/min	Outline Dimensions						Driving Equipment		
		Width (W) m/m	Length (L) m/m	Height				Horsepower HP	Fan Dia. DØmm	Air Volume M <sup>3</sup> /MIN/CELL
				(H)	(H <sub>1</sub> )	(H <sub>2</sub> )	(H <sub>3</sub> )			
300	3900	4380	3570	4760	1460	3300	620	10x1	2970	1850
350	4550	4380	3770	4760	1460	3300	620	10x1	2970	2200
400	5200	4780	4170	5025	1760	3300	820	15x1	3380	2600
450	5850	5380	4170	5025	1760	3300	820	15x1	3380	2600
500	6500	5380	4370	5425	1760	3700	820	15x1	3380	2800
600	7800	5580	5170	5535	1835	3700	820	20x1	3580	3500
700	9100	5580	5770	5535	1835	3700	820	20x1	3580	4000
800	10400	6280	5770	6270	2070	4200	820	30x1	4270	4800
900	11700	6280	6370	6270	2070	4200	820	30x1	4270	5200
1000	13000	6280	7170	6320	2120	4200	820	40x1	4270	5500
300-C2	7800	4380	6990	4760	1460	3300	620	10x2	2970	1850
350-C2	9100	4380	7390	4760	1460	3300	620	10x2	2970	2200
400-C2	10400	4780	8190	5025	1760	3300	820	15x2	3380	2600
450-C2	11700	5380	8190	5025	1760	3300	820	15x2	3380	2600
500-C2	13000	5380	8590	5425	1760	3700	820	15x2	3380	2800
600-C2	15600	5580	10190	5535	1835	3700	820	20x2	3580	3500
700-C2	18200	5580	11390	5535	1835	3700	820	20x2	3580	4000
800-C2	20800	6280	11390	6270	2070	4200	820	30x2	4270	4800
900-C2	23400	6280	12590	6270	2070	4200	820	30x2	4270	5200
1000-C2	26000	6280	14190	6320	2120	4200	820	40x2	4270	5500
300-C3	11700	4380	10410	4760	1460	3300	620	10x3	2970	1850
400-C3	15600	4780	12210	5025	1760	3300	820	15x3	3380	2600
500-C3	19500	5380	12810	5425	1760	3700	820	15x3	3380	2800
600-C3	23400	5580	15210	5535	1835	3700	820	20x3	3580	3500
1000-C3	39000	6280	21210	6320	2120	4200	820	40x3	4270	5500
300-C4	15600	4380	13830	4760	1460	3300	620	10x4	2970	1850
350-C4	18200	4380	14630	4760	1460	3300	620	10x4	2970	2200
400-C4	20800	4780	16230	5025	1760	3300	820	15x4	3380	2600
450-C4	23400	5380	16230	5025	1760	3300	820	15x4	3380	2600
500-C4	26000	5380	17030	5425	1760	3700	820	15x4	3380	2800
1000-C4	52000	6280	28230	6320	2120	4200	820	40x4	4270	5500
300-C5	19500	4380	17250	4760	1460	3300	620	10x5	2970	1850
400-C5	26000	4780	20250	5025	1760	3300	820	15x5	3380	2600
450-C5	29250	5380	20250	5025	1760	3300	820	15x5	3380	2600
500-C5	32500	5380	21250	5425	1760	3700	820	15x5	3380	2800
600-C5	39000	5580	25250	5535	1835	3700	820	20x5	3580	3500
700-C5	45500	5580	28250	5535	1835	3700	820	20x5	3580	4000
800-C5	52000	6280	28250	6270	2070	4200	820	30x5	4270	4800
900-C5	58500	6280	31250	6270	2070	4200	820	30x5	4270	5200
1000-C5	65000	6280	35250	6320	2120	4200	820	40x5	4270	5500

- Design Criteria: HWT=37°C; CWT=32°C; WBT=27°C; Water Flow Rate=13 LPM/RT
- Total Pump Head: Piping Friction Loss+Chiller Pressure Loss+Tower Head
- Other multi-cells that are not listed are also available. Please contact our local sales engineers.

# LRC-N Cross Flow Cooling Tower

## LRC-N-300 through 1000 Spec and Piping Dimensions

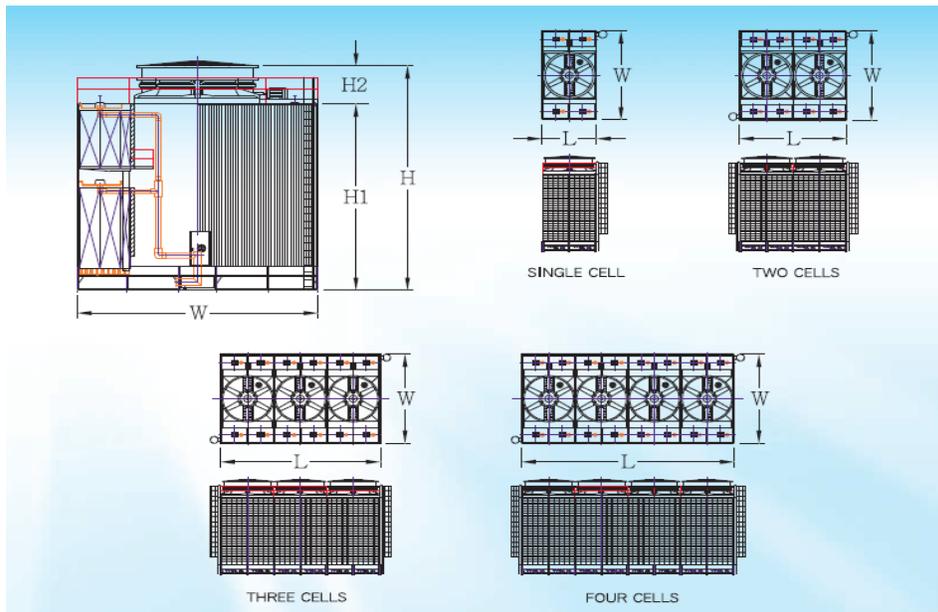


Item Model LRC-N	Dry Weight kg	Operating Weight kg	Tower Head M	Piping Size				
				Inlet Water (I)	Outlet (C)	Drain (D)	Overflow (O)	Make-up Auto(A)/Manual(M)
300	1660	3980	3.9	5B(125A)x4	8B(200A)x1	2B(50A)x1	2B(50A)x1	1 1/4 B(32A)x1
350	1850	4640	3.9	5B(125A)x4	8B(200A)x1	2B(50A)x1	2B(50A)x1	1 1/4 B(32A)x1
400	1990	5510	3.9	5B(125A)x4	8B(200A)x1	2B(50A)x1	2B(50A)x1	1 1/4 B(32A)x1
450	2290	6420	3.9	5B(125A)x4	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
500	2520	6930	4.3	5B(125A)x4	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
600	4200	10500	4.3	6B(150A)x4	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
700	4400	11400	4.3	6B(150A)x4	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
800	4900	12800	4.7	6B(150A)x4	10B(250A)x2	2B(50A)x2	2B(50A)x2	2B(50A)x2
900	5300	14000	4.7	8B(200A)x4	10B(250A)x2	2B(50A)x2	2B(50A)x2	2B(50A)x2
1000	5800	15400	4.7	8B(200A)x4	10B(250A)x2	2B(50A)x2	2B(50A)x2	2B(50A)x2
300-C2	3200	7840	3.9	5B(125A)x8	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
350-C2	3560	9140	3.9	5B(125A)x8	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
400-C2	3820	10860	3.9	5B(125A)x8	8B(200A)x2	2B(50A)x2	2B(50A)x2	1 1/4 B(32A)x2
450-C2	4400	12660	3.9	5B(125A)x8	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
500-C2	4920	13740	4.3	5B(125A)x8	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
600-C2	8200	20800	4.3	6B(150A)x8	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
700-C2	8600	22600	4.3	6B(150A)x8	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
800-C2	9600	25400	4.7	6B(150A)x8	10B(250A)x4	2B(50A)x4	2B(50A)x4	2B(50A)x4
900-C2	10400	27800	4.7	8B(200A)x8	10B(250A)x4	2B(50A)x4	2B(50A)x4	2B(50A)x4
1000-C2	11400	30600	4.7	8B(200A)x8	10B(250A)x4	2B(50A)x4	2B(50A)x4	2B(50A)x4
300-C3	4740	11700	3.9	5B(125A)x12	8B(200A)x3	2B(50A)x3	2B(50A)x3	1 1/4 B(32A)x3
400-C3	5650	16210	3.9	5B(125A)x12	8B(200A)x3	2B(50A)x3	2B(50A)x3	1 1/4 B(32A)x3
500-C3	7320	20550	4.3	5B(125A)x12	8B(200A)x6	2B(50A)x6	2B(50A)x6	1 1/4 B(32A)x6
600-C3	12200	31100	4.3	6B(150A)x12	8B(200A)x6	2B(50A)x6	2B(50A)x6	1 1/4 B(32A)x6
1000-C3	17000	45800	4.7	8B(200A)x12	10B(250A)x6	2B(50A)x6	2B(50A)x6	2B(50A)x6
300-C4	6280	15560	3.9	5B(125A)x16	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
350-C4	6980	18140	3.9	5B(125A)x16	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
400-C4	7480	21560	3.9	5B(125A)x16	8B(200A)x4	2B(50A)x4	2B(50A)x4	1 1/4 B(32A)x4
450-C4	8620	25140	3.9	5B(125A)x16	8B(200A)x8	2B(50A)x8	2B(50A)x8	1 1/4 B(32A)x8
500-C4	9720	27360	4.3	5B(125A)x16	8B(200A)x8	2B(50A)x8	2B(50A)x8	1 1/4 B(32A)x8
1000-C4	22600	61000	4.7	8B(200A)x16	10B(250A)x8	2B(50A)x8	2B(50A)x8	2B(50A)x8
300-C5	7820	19420	3.9	5B(125A)x20	8B(200A)x5	2B(50A)x5	2B(50A)x5	1 1/4 B(32A)x5
400-C5	9310	26910	3.9	5B(125A)x20	8B(200A)x5	2B(50A)x5	2B(50A)x5	1 1/4 B(32A)x5
450-C5	10730	31380	3.9	5B(125A)x20	8B(200A)x10	2B(50A)x10	2B(50A)x10	1 1/4 B(32A)x10
500-C5	12120	34170	4.3	5B(125A)x20	8B(200A)x10	2B(50A)x10	2B(50A)x10	1 1/4 B(32A)x10
600-C5	20200	51700	4.3	6B(150A)x20	8B(200A)x10	2B(50A)x10	2B(50A)x10	1 1/4 B(32A)x10
700-C5	21200	56200	4.3	6B(150A)x20	8B(200A)x10	2B(50A)x10	2B(50A)x10	1 1/4 B(32A)x10
800-C5	23700	63200	4.7	6B(150A)x20	10B(250A)x10	2B(50A)x10	2B(50A)x10	2B(50A)x10
900-C5	25700	69200	4.7	8B(200A)x20	10B(250A)x10	2B(50A)x10	2B(50A)x10	2B(50A)x10
1000-C5	28200	76200	4.7	8B(200A)x20	10B(250A)x10	2B(50A)x10	2B(50A)x10	2B(50A)x10

- If the pipe diameter is to change or equalized pipes are required, please contact our local sales engineer in advance.
- External piping size (dia) for make-up pipe 1 1/4B(32A) is 1 1/2B(40A)

# LRC-N Cross Flow Cooling Tower

## LRC-N-1200 through 1800 Outline and Spec

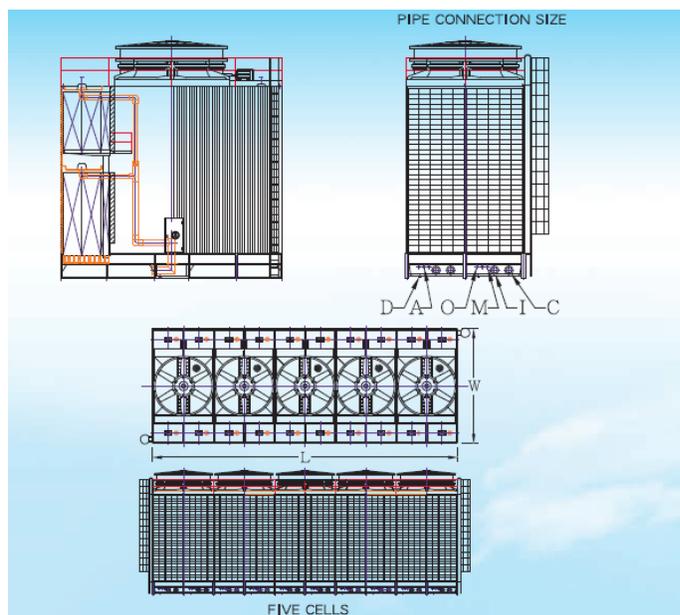


Item Model LRC-N	Water Flow ℓ/min	Outline Dimensions					Driving Equipment		
		Width (W) m/m	Length (L) m/m	Height			Horsepower HP	Fan Dia. DØmm	Air Volume M <sup>3</sup> /MIN/CELL
				(H) m/m	(Hi) m/m	(H <sub>2</sub> ) m/m			
1200	11535	7280	4370	8475	7655	820	50x1	3600	6600
1400	13458	7280	4370	9225	7655	1570	60x1	3600	7700
1600	15380	8780	4770	9225	7655	1570	75x1	4270	8800
1800	17303	8780	4770	9225	7655	1570	100x1	4270	9900
1200-C2	23070	7280	8590	8475	7655	820	50x2	3600	6600
1400-C2	26916	7280	8590	9225	7655	1570	60x2	3600	7700
1600-C2	30760	8780	9390	9225	7655	1570	75x2	4270	8800
1800-C2	34606	8780	9390	9225	7655	1570	100x2	4270	9900
1200-C3	34605	7280	12810	8475	7655	820	50x3	3600	6600
1400-C3	40374	7280	12810	9225	7655	1570	60x3	3600	7700
1600-C3	46140	8780	14010	9225	7655	1570	75x3	4270	8800
1800-C3	51909	8780	14010	9225	7655	1570	100x3	4270	9900
1200-C4	46140	7280	17030	8475	7655	820	50x4	3600	6600
1400-C4	53832	7280	17030	9225	7655	1570	60x4	3600	7700
1600-C4	61520	8780	18630	9225	7655	1570	75x4	4270	8800
1800-C4	69212	8780	18630	9225	7655	1570	100x4	4270	9900
1200-C5	57675	7280	21250	8475	7655	820	50x5	3600	6600
1400-C5	67290	7280	21250	9225	7655	1570	60x5	3600	7700
1600-C5	76900	8780	23250	9225	7655	1570	75x5	4270	8800
1800-C5	86515	8780	23250	9225	7655	1570	100x5	4270	9900

- Design Criteria: HWT=37°C; CWT=32°C; WBT=29°C;
- Above LRC-N-1400-1800 will go with horizontal driving units except LRC-N-1200 that still uses vertical driving.
- Total Pump Head: Piping Friction Loss+Chiller Pressure Loss+Tower Head
- Other multi-cells that are not listed are also available. Please contact our local sales engineers.

# LRC-N Cross Flow Cooling Tower

## LRC-N-1200 through 1800 Spec and Piping Dimensions

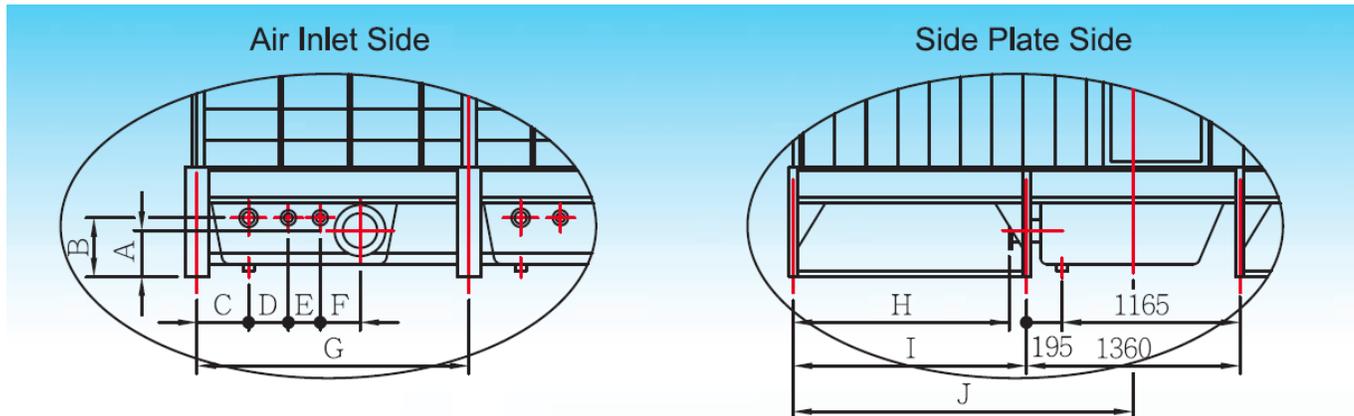


Item Model LRC-N	Dry Weight kg	Operating Weight kg	Tower Head M	Piping size				
				Inlet Water (I)	Outlet Water (C)	Drain (D)	Overflow (O)	Makeup Water Auto(A)/Manual(M)
1200	8800	23500	8	10B(250A)x2	10B(250A)x2	2B(50A)x2	2B(50A)x2	2B(50A)x2
1400	9100	23800	8	10B(250A)x2	10B(250A)x2	2B(50A)x2	2B(50A)x2	2B(50A)x2
1600	11400	30300	8	12B(300A)x2	12B(300A)x2	2B(50A)x2	2B(50A)x2	2B(50A)x2
1800	11500	30400	8	12B(300A)x2	12B(300A)x2	2B(50A)x2	2B(50A)x2	2B(50A)x2
1200-C2	17400	46800	8	10B(250A)x4	10B(250A)x4	2B(50A)x4	2B(50A)x4	2B(50A)x4
1400-C2	18000	47400	8	10B(250A)x4	10B(250A)x4	2B(50A)x4	2B(50A)x4	2B(50A)x4
1600-C2	22600	60400	8	12B(300A)x4	12B(300A)x4	2B(50A)x4	2B(50A)x4	2B(50A)x4
1800-C2	22800	60600	8	12B(300A)x4	12B(300A)x4	2B(50A)x4	2B(50A)x4	2B(50A)x4
1200-C3	26000	70100	8	10B(250A)x6	10B(250A)x6	2B(50A)x6	2B(50A)x6	2B(50A)x6
1400-C3	26900	71000	8	10B(250A)x6	10B(250A)x6	2B(50A)x6	2B(50A)x6	2B(50A)x6
1600-C3	33800	90500	8	12B(300A)x6	12B(300A)x6	2B(50A)x6	2B(50A)x6	2B(50A)x6
1800-C3	34100	90800	8	12B(300A)x6	12B(300A)x6	2B(50A)x6	2B(50A)x6	2B(50A)x6
1200-C4	34600	93400	8	10B(250A)x8	10B(250A)x8	2B(50A)x8	2B(50A)x8	2B(50A)x8
1400-C4	35800	94600	8	10B(250A)x8	10B(250A)x8	2B(50A)x8	2B(50A)x8	2B(50A)x8
1600-C4	45000	120600	8	12B(300A)x8	12B(300A)x8	2B(50A)x8	2B(50A)x8	2B(50A)x8
1800-C4	45400	121000	8	12B(300A)x8	12B(300A)x8	2B(50A)x8	2B(50A)x8	2B(50A)x8
1200-C5	43200	116700	8	10B(250A)x10	10B(250A)x10	2B(50A)x10	2B(50A)x10	2B(50A)x10
1400-C5	44700	118200	8	10B(250A)x10	10B(250A)x10	2B(50A)x10	2B(50A)x10	2B(50A)x10
1600-C5	56200	150700	8	12B(300A)x10	12B(300A)x10	2B(50A)x10	2B(50A)x10	2B(50A)x10
1800-C5	56700	151200	8	12B(300A)x10	12B(300A)x10	2B(50A)x10	2B(50A)x10	2B(50A)x10

● If the pipe diameter is to change or equalized pipes are required, please contact our local sales engineer in advance.

# LRC-N Cross Flow Cooling Tower

## LRC-N-40 through 1000 Water Sump Piping

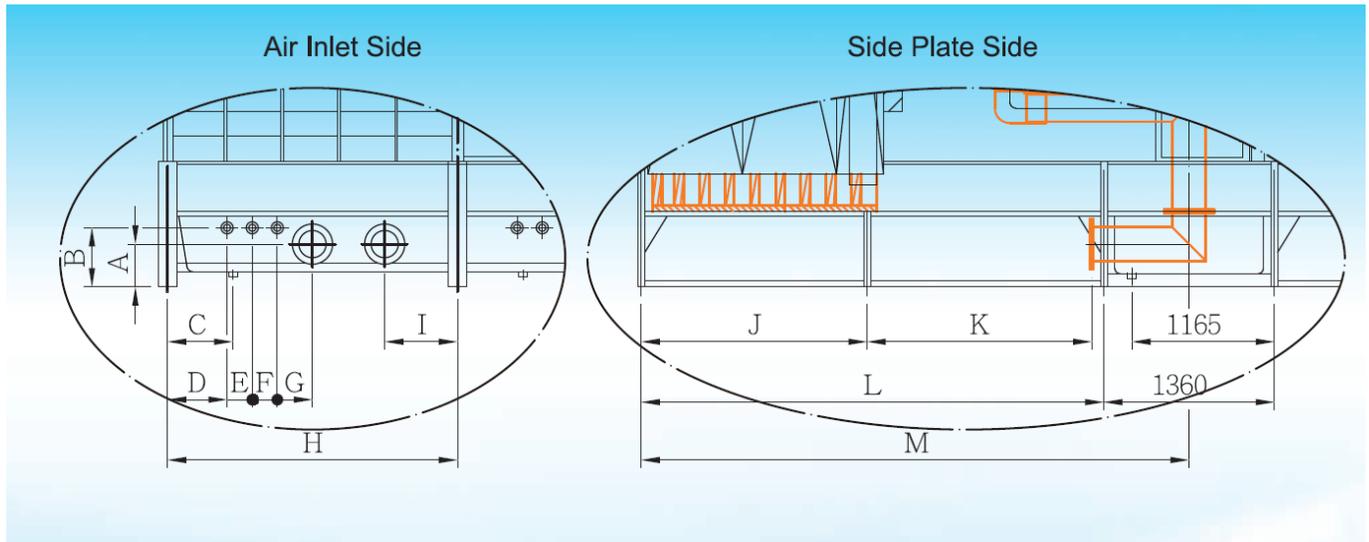


ITEM Model LRC-N	Piping Orientation									
	A	B	C	D	E	F	G	H	I	J
40	290	370	325	250	200	250	1405	525	635	1315
50	290	370	325	250	200	250	1605	525	635	1315
60	290	370	325	250	200	250	1805	625	735	1415
70	290	370	325	250	200	250	2005	625	735	1415
80	290	370	325	250	200	250	1405	525	635	1315
100	290	370	325	250	200	250	1605	525	635	1315
125	290	370	325	250	200	250	1805	625	735	1415
150	290	370	325	250	200	250	2005	625	735	1415
175	290	370	325	250	200	250	2210	725	835	1515
200	290	370	325	250	200	250	2410	775	885	1565
225	290	370	325	250	200	250	2510	875	985	1665
250	290	370	325	250	200	250	2810	875	985	1665
40-CN	290	370	325	250	200	250	1405	525	635	1315
50-CN	290	370	325	250	200	250	1605	525	635	1315
60-CN	290	370	325	250	200	250	1805	625	735	1415
70-CN	290	370	325	250	200	250	2005	625	735	1415
80-CN	290	370	325	250	200	250	1405	525	635	1315
100-CN	290	370	325	250	200	250	1605	525	635	1315
125-CN	290	370	325	250	200	250	1805	625	735	1415
150-CN	290	370	325	250	200	250	2005	625	735	1415
175-CN	290	370	325	250	200	250	2210	725	835	1515
200-CN	290	370	325	250	200	250	2410	775	885	1565
225-CN	290	370	325	250	200	250	2510	875	985	1665
250-CN	290	370	325	250	200	250	2810	875	985	1665
300	290	370	325	250	200	250	1710	1375	1485	2165
350	290	370	325	250	200	250	1810	1375	1485	2165
400	290	370	325	250	200	250	2010	1575	1685	2365
450	290	370	325	250	200	250	2010	1875	1985	2665
500	290	370	325	250	200	250	2110	1875	1985	2665
600	290	370	325	250	200	250	2510	1975	2085	2765
700	290	370	325	250	200	250	2810	1975	2085	2765
800	340	470	345	230	200	230	2810	2325	2435	3115
900	340	470	345	230	200	230	3110	2325	2435	3115
1000	340	470	345	230	200	230	3510	2325	2435	3115
300-CN	290	370	325	250	200	250	1710	1375	1485	2165
350-CN	290	370	325	250	200	250	1810	1375	1485	2165
400-CN	290	370	325	250	200	250	2010	1575	1685	2365
450-CN	290	370	325	250	200	250	2010	1875	1985	2665
500-CN	290	370	325	250	200	250	2110	1875	1985	2665
600-CN	290	370	325	250	200	250	2510	1975	2085	2765
700-CN	290	370	325	250	200	250	2810	1975	2085	2765
800-CN	340	470	345	230	200	230	2810	2325	2435	3115
900-CN	340	470	345	230	200	230	3110	2325	2435	3115
1000-CN	340	470	345	230	200	230	3510	2325	2435	3115

\* N ≥ 2 (N means number of cells)

# LRC-N Cross Flow Cooling Tower

## LRC-N-1200 through 1800 Water Sump Piping

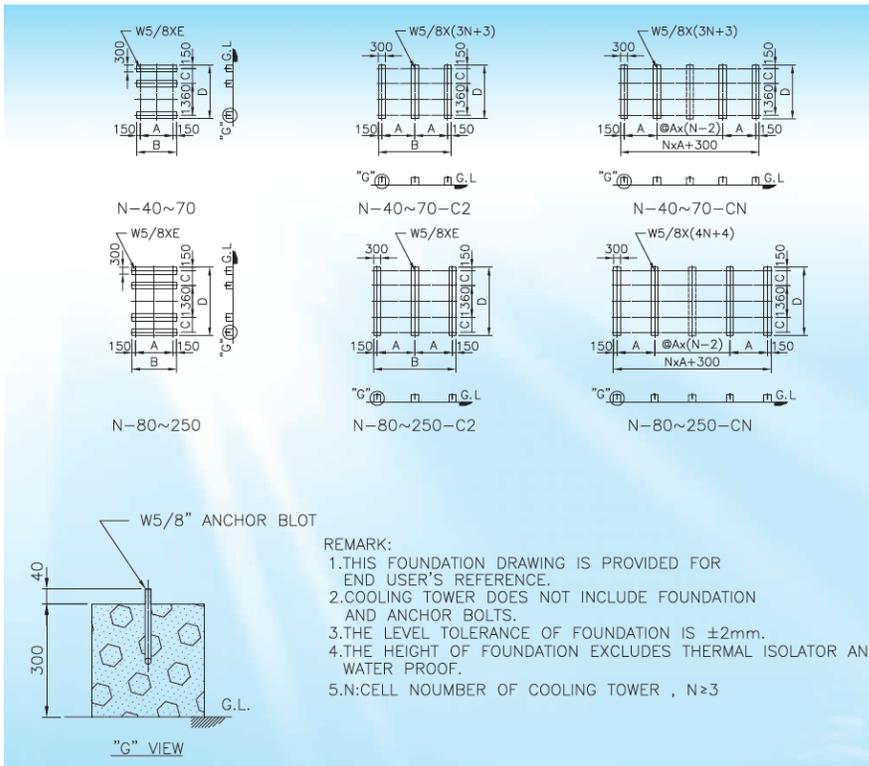


Item Model LRC-N	Piping Orientation												
	A	B	C	D	E	F	G	H	I	J	K	L	M
	m/m	m/m	m/m	m/m	m/m	m/m	m/m	m/m	m/m	m/m	m/m	m/m	m/m
1200	340	470	395	375	200	200	280	2110	450	1480	1345	2935	3615
1400	340	470	395	375	200	200	280	2110	450	1480	1345	2935	3615
1600	320	470	525	475	200	200	280	2310	580	1800	1775	3685	4365
1800	320	470	525	475	200	200	280	2310	580	1800	1775	3685	4365
1200-CN	340	470	395	375	200	200	280	2110	450	1480	1345	2935	3615
1400-CN	340	470	395	375	200	200	280	2110	450	1480	1345	2935	3615
1600-CN	320	470	525	475	200	200	280	2310	580	1800	1775	3685	4365
1800-CN	320	470	525	475	200	200	280	2310	580	1800	1775	3685	4365

\*  $N \geq 2$  (N means number of cells)

# LRC-N Cross Flow Cooling Tower

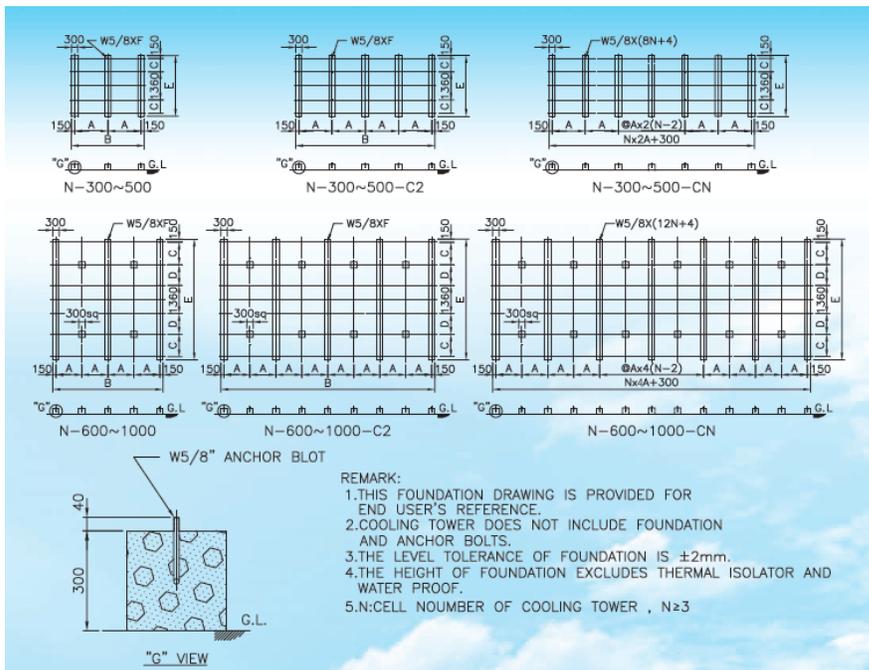
## LRC-N Recommended Concrete Foundations



LRC-N	ITEM	A	B	C	D	E
40	1405	1705	635	2295	6	
50	1605	1905	635	2295	6	
60	1805	2105	735	2395	6	
70	2005	2305	735	2395	6	
80	1405	1705	635	2930	8	
100	1605	1905	635	2930	8	
125	1805	2105	735	3130	8	
150	2005	2305	735	3130	8	
175	2210	2510	835	3330	8	
200	2410	2710	885	3430	8	
225	2510	2810	985	3630	8	
250	2810	3110	985	3630	8	

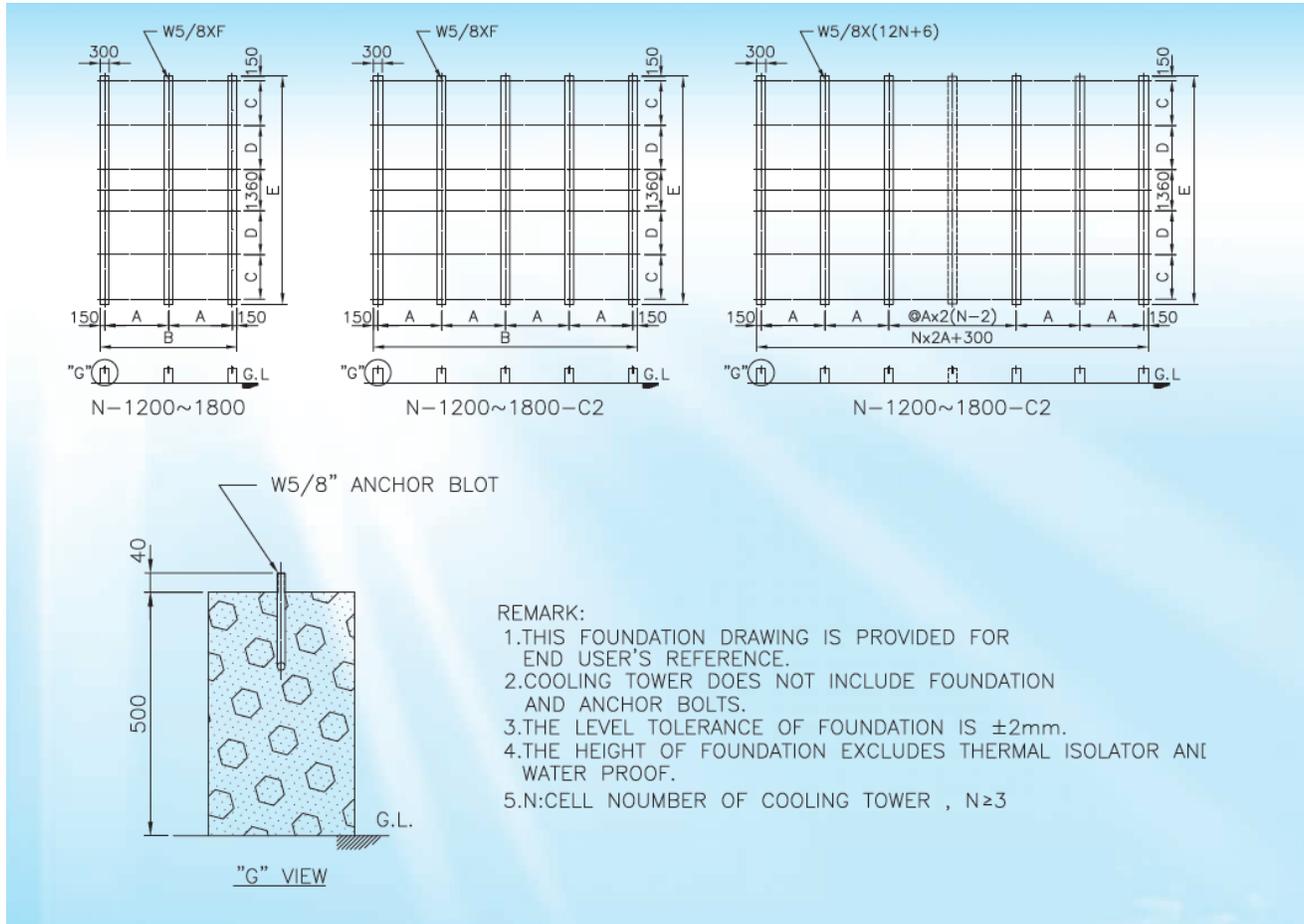
LRC-N	ITEM	A	B	C	D	E
40-C2	1405	3110	635	2295	9	
50-C2	1605	3510	635	2295	9	
60-C2	1805	3910	735	2395	9	
70-C2	2005	4310	735	2395	9	
80-C2	1405	3110	635	2930	12	
100-C2	1605	3510	635	2930	12	
125-C2	1805	3910	735	3130	12	
150-C2	2005	4310	735	3130	12	
175-C2	2210	4720	835	3330	12	
200-C2	2410	5120	885	3430	12	
225-C2	2510	5320	985	3630	12	
250-C2	2810	5920	985	3630	12	



LRC-N	ITEM	A	B	C	D	E	F
300	1710	3720	1485	-	4630	12	
350	1810	3920	1485	-	4630	12	
400	2010	4320	1685	-	5030	12	
450	2010	4320	1985	-	5630	12	
500	2110	4520	1985	-	5630	12	
600	1255	5320	1085	1000	5830	16	
700	1405	5920	1085	1000	5830	16	
800	1405	5920	1260	1175	6530	16	
900	1555	6520	1260	1175	6530	16	
1000	1755	7320	1260	1175	6530	16	
300-C2	1710	7140	1485	-	4630	20	
350-C2	1810	7540	1485	-	4630	20	
400-C2	2010	8340	1685	-	5030	20	
450-C2	2010	8340	1985	-	5630	20	
500-C2	2110	8740	1985	-	5630	20	
600-C2	1255	10340	1085	1000	5830	28	
700-C2	1405	11540	1085	1000	5830	28	
800-C2	1405	11540	1260	1175	6530	28	
900-C2	1555	12740	1260	1175	6530	28	
1000-C2	1755	14340	1260	1175	6530	28	

# LRC-N Cross Flow Cooling Tower

## LRC-N Recommended Concrete Foundations



LRC-N \ ITEM	A	B	C	D	E	F
1200	2110	4520	1480	1455	7530	18
1400	2110	4520	1480	1455	7530	18
1600	2310	4920	1800	1855	9030	18
1800	2310	4920	1800	1855	9030	18
1200-C2	2110	8740	1480	1455	7530	30
1400-C2	2110	8740	1480	1455	7530	30
1600-C2	2310	9540	1800	1855	9030	30
1800-C2	2310	9540	1800	1855	9030	30

# LRC-N Cross Flow Cooling Tower

LRC-N Selection Table 40-1000

Wet Bulb Temperature	27°C			28°C			29°C			83°F	84°F
Hot Water Temp. — Cold Water Temp.	37	42	55	37	42	55	37	42	55	100°F	100°F
Water Flow											
RT	32	32	35	32	32	35	32	32	35	90°F	90°F
	LPM			LPM			LPM			GPM	
40	520	333	372	448	292	347	370	247	320	109	99
50	650	414	462	558	363	431	461	307	398	136	123
60	780	489	543	667	426	505	547	358	465	162	146
70	910	585	653	784	513	610	649	435	563	191	173
80	1040	652	724	889	568	674	729	478	620	216	195
100	1300	815	905	1112	710	842	912	597	775	271	244
125	1625	1030	1147	1394	901	1069	1148	760	986	340	307
150	1950	1241	1383	1675	1086	1290	1382	918	1190	409	369
175	2275	1458	1627	1959	1278	1519	1619	1083	1403	478	433
200	2600	1650	1838	2233	1444	1714	1839	1219	1580	545	492
225	2925	1845	2052	2506	1611	1912	2060	1358	1762	611	551
250	3250	2055	2289	2787	1797	2134	2293	1516	1966	680	614
300	3900	2540	2845	3372	2235	2662	2805	1903	2465	827	750
350	4550	2943	3292	3927	2586	3078	3258	2197	2847	962	872
400	5200	3330	3715	4476	2919	3469	3699	2472	3203	1095	990
450	5850	3896	4391	5090	3451	4119	4271	2959	3827	1253	1143
500	6500	4382	4954	5674	3893	4657	4782	3353	4334	1401	1280
600	7800	5175	5827	6779	4580	5465	5680	3922	5074	1669	1521
700	9100	6087	6866	7927	5397	6447	6662	4635	5993	1954	1784
800	10400	6833	7673	9017	6030	7189	7525	5148	6663	2216	2015
900	11700	7792	8782	10181	6903	8238	8541	5919	7653	2509	2287
1000	13000	8831	10004	11375	7862	9412	9613	6787	8771	2812	2574

**Remarks :**

1. Above water flow listed is for single cell only.
2. The total water flow for multiple cells is estimated by multiplying the water flow of single cell with number of cells.
3. Please specify the number of cells needed for selecting the proper size of cooling tower
4. The hot water temperature above 45°C~65°C will require CPVC filling that can withstand high temperature.

# LRC-N Cross Flow Cooling Tower

## LRC-N Selection Table 1200-1800

Wet Bulb Temperature	28°C			29°C			82.4°F	84.2°F
Hot Water Temp. — Cold Water Temp.	37	42	55	37	42	55	100°F	100°F
Water Flow								
RT	32	32	35	32	32	35	90°F	90°F
	LPM			LPM			GPM	GPM
1200	13650	9435	11295	11535	8144	10526	3539	3030
1200-C2	27300	18870	22590	23070	16288	21052	7078	6060
1200-C3	40950	28305	33885	34605	24432	31578	10617	9090
1400	15925	11007	13177	13458	9502	12280	4129	3535
1400-C2	31850	22014	26354	26916	19004	24560	8258	7070
1400-C3	47775	33021	39531	40374	28506	36840	12387	10605
1600	18200	12580	15060	15380	10859	14034	4719	4040
1600-C2	36400	25160	30120	30760	21718	28068	9438	8080
1600-C3	54600	37740	45180	46140	32577	42102	14157	12120
1800	20475	14152	16942	17303	12217	15788	5309	4545
1800-C2	40950	28304	33884	34606	24434	31576	10618	9090
1800-C3	61425	42456	50826	51909	36651	47364	15927	13635

Remarks:

1. The minimum design Wet Bulb Temp. for above models is 28°C (incl.); Please consult with our sales engineer, if WBT is below 28°C.
2. Above water flow listed is for single cell.
3. The water flow for multiple cells is estimated by multiplying the water flow of single cell with number of cells.
4. Please specify the number of cells needed for selecting the proper size of cooling tower.
5. Hot water temperature above 45°C~65°C will require CPVC filling that can withstand high temperature.