

SRC Rectangular Counterflow Cooling Tower



Cooling Technologies

Balcke | Hamon Dry Cooling | Marley

SRC SERIES FEATURES AND BENEFITS

The SRC series is fully addressed the problem in regard to access, ease and simplicity of cleaning and low maintenance through the use of non-corrosive material. SRC towers are designed to meet environmental standards including low noise and power requirement.



Marley Aerofoil type Fan

EXCELLENT QUALITY:

Thermal guarantee: We have sized all units with consideration to varying inlet pressures and water flows which can have significant effect on thermal performance. All products are thermally guaranteed to perform in their selected field experience.

TU-12C plus Drift Eliminators: Constructed from PVC, the efficient drift rate to less than 0.0005%. With the advantage of the eliminators, our towers can be installed near sensitive areas.

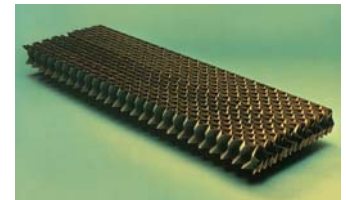
High efficiency MC-75 fill: With low pressure drop, ensures optimum performance. Fill comes in easy-to-handle and clean sections with excellent structural integrity.

Water Distribution System: The circulation water will be distributed to the fill by Marley NS Nozzles complete with diffuser rings. The design ensures that high pressure surges do not displace the nozzle. Low inlet pressure is all that is required for efficient water coverage.

Mechanical equipment: Where they are utilized, mechanical components, such as bearings and belts are designed for heavy and continuous industrial duty to assure long life.



Marley NS Nozzle



Marley TU-12C Drift Eliminator

ENVIRONMENTAL PROTECTION:

Water loss minimized: Due to highly engineered drift eliminators and air inlet louvers combine to save water, and maintain dry area around the tower.

Low operating costs: Due to SRC tower's efficient design. For example, fan cylinder inlet and large fill plan area keep internal static down, ensuring low operational power consumption. Very energy efficient motors are rated to IP55 for outdoor, moist air extremes found in cooling tower application.

Low Noise: The SRC tower utilizes aluminum low speed fans. All models are furnished with adjustable pitch blades. NS Nozzles and high efficient noise absorb splash mat eliminate the falling water noise.



Marley NS5A Nozzle

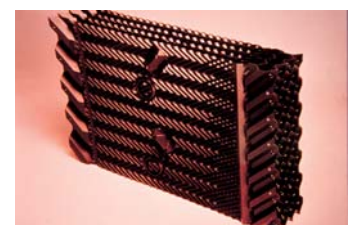
MORE FEATURES AND BENEFITS:

Designed for easy site assembly: SRC tower sections are designed for easy on-site assembly.

Sections are easy to transport, including transporting through lifts. Basins and fan cylinders can be modified into smaller sections for difficult access situations.

Basin is easily accessible for cleaning: No need for personnel to enter confined space to clean basin, or remove fill or eliminators for access.

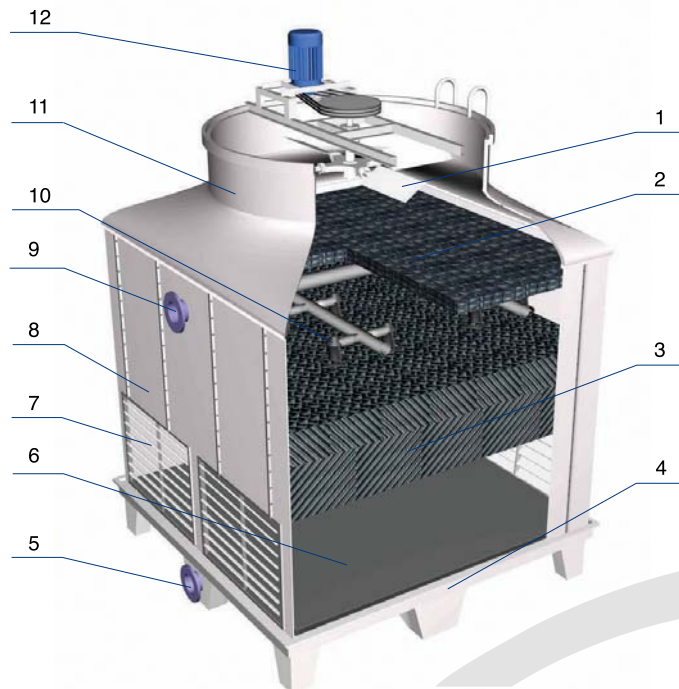
Positive thread nozzles are easy to remove for cleaning: Eliminators are not disturbed during routine maintenance and cleaning.



Marley MC-75 Fill

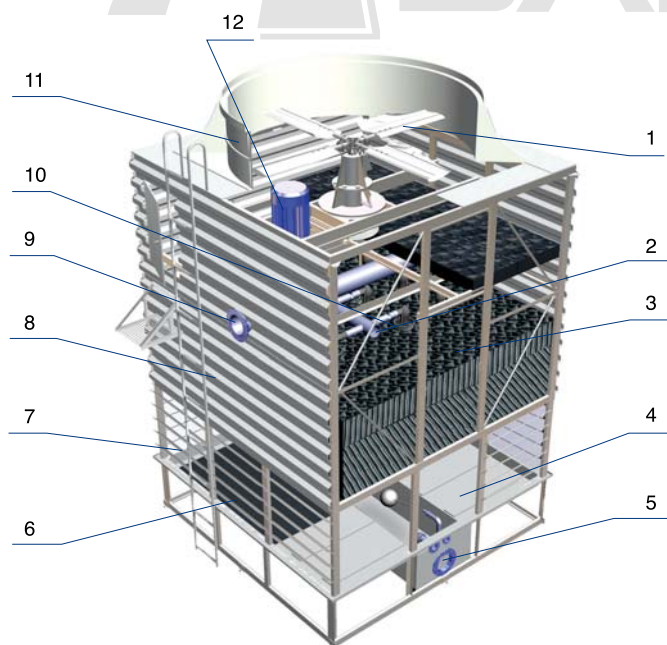
SRC series structure feature

SRC-80L~SRC-400L STRUCTURE FEATURE



1. Fan (Aluminum alloy, Aerofoil type)
2. XCEL Drift Eliminator (Marley patent, PVC)
3. Fill (Marley Patent MC-75, PVC)
4. Cold water basin (FRP)
5. Outlet flange (Cast iron)
6. Splash mat
7. Inlet louver (PVC)
8. Casing (FRP)
9. Inlet flange (Cast iron)
10. NS Nozzle (Marley Patent, PP)
11. Fan cylinder (FRP)
12. Motor (TEFC IP55, F class)

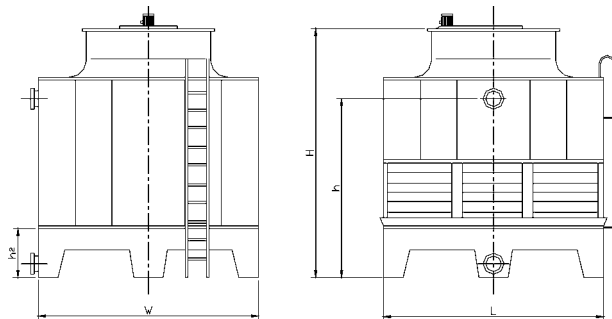
SRC-450L~SRC-800L STRUCTURE FEATURE



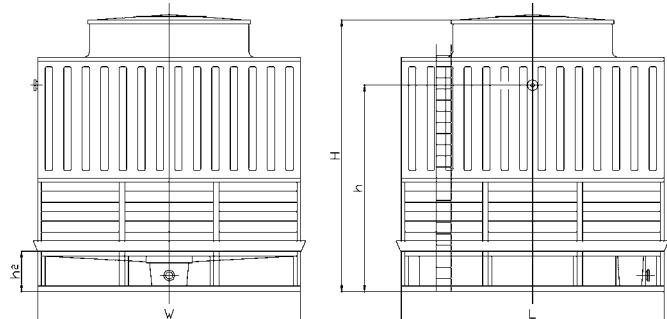
1. Fan (Aluminum alloy, Aerofoil type)
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11. Fan cylinder (FRP)
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SRC series single cell outline drawing

SRC-80L~SRC-400L



SRC-450L~SRC-800L



SRC SERIES PARAMETER TABLE

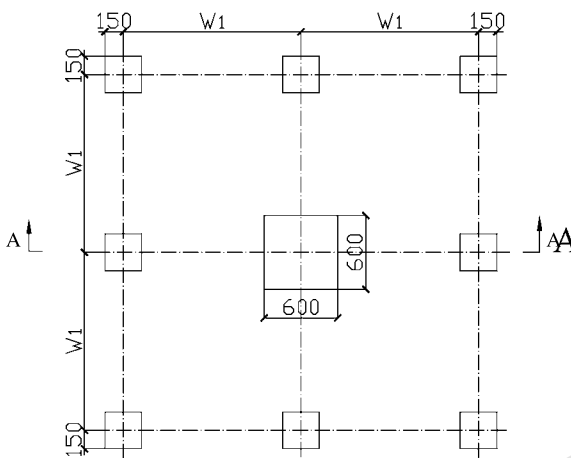
Item Model	Water Flow M³/h	Power System		Outline Dimension				Pipe Diameter mm							Pump Head mH₂O	Weight kg		Noise Data		Operating Water level h2(mm)
		Fan Dia. φ mm	Motor Power kw	Length	Width	Height		Inlet Dia. φ mm	Outlet Dia. φ mm	Over Dia. φ mm	Auto Dia. φ mm	Quick Dia. φ mm	Drain Dia. φ mm	D.W		OP.W	standard point dB(A)	15m dB(A)		
				L	W	H	h													
				mm	mm	mm														
SRC-80L	80	1484	2.2	2300	2300	4500	3430	125	125	40	20	20	40	4.5	1050	2500	60	50	650	
SRC-100L	100	1484	3	2300	2300	4500	3430	125	125	40	20	20	40	4.5	1070	2520	61	50	650	
SRC-125L	125	1780	4	2800	2800	4600	3430	150	150	80	25	25	40	4.5	1450	3640	61	51	650	
SRC-150L	150	1780	5.5	2800	2800	4600	3430	150	150	80	25	25	40	4.5	1470	3660	61.5	51.5	650	
SRC-175L	175	2100	5.5	3100	3100	4700	3430	150	150	80	25	25	40	4.5	1750	4400	62	52	650	
SRC-200L	200	2370	7.5	3100	3100	4700	3430	200	200	80	25	25	40	4.5	1830	4480	63	52	650	
SRC-225L	225	2370	5.5	3810	3810	4800	3430	200	200	80	25	25	40	4.5	2200	5070	63	53	650	
SRC-250L	250	2370	7.5	3810	3810	4800	3430	200	200	80	25	25	40	4.5	2250	6120	63.5	53.5	650	
SRC-300L	300	2910	11	3810	3810	4800	3430	200	200	80	25	25	40	4.5	2350	6220	64	55	650	
SRC-350L	350	2910	15	4200	4200	5000	3430	250	250	100	50	50	50	4.5	2900	7520	65	56	650	
SRC-400L	400	2910	15	4500	4500	5100	3430	250	250	100	50	50	50	4.5	3150	8400	66	57	650	
SRC-450L	450	2910	15	5060	5060	5180	3295	250	250	100	50	50	80	4.5	4600	9550	66	58	730	
SRC-500L	500	3330	15	5060	5060	5180	3295	250	250	100	50	50	80	4.5	4650	9650	67	59	730	
SRC-600L	600	3330	18.5	6300	6300	5610	3665	250	250	100	50	50	80	5.0	5850	11350	68	62	800	
SRC-700L	700	3580	18.5	6910	6910	5610	3640	300	300	100	80	80	80	5.0	6820	13320	68	63	800	
SRC-800L	800	4200	22	7480	7480	6070	3900	300	300	100	80	80	80	5.0	7900	15500	69	65	800	

Note:

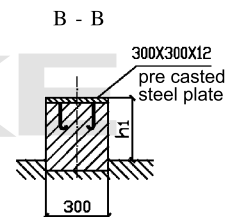
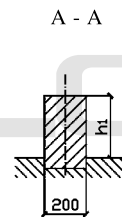
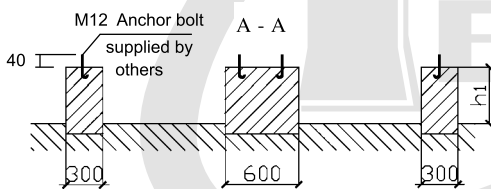
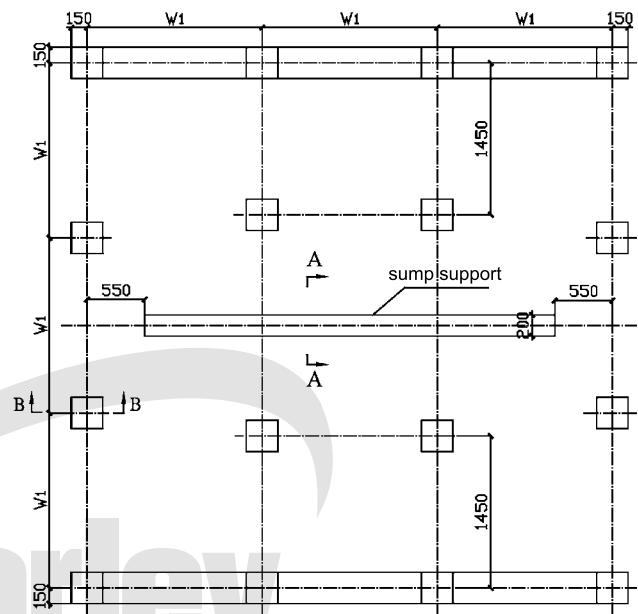
- The data in the above table is for single cell. If the flow rate is ranging between 200m³/h and 800m³/h, the model can be both single cell and multi-cells, such as SRC600L, it can be composed of SRC200Lx3 cells or SRC300Lx2 cells, or SRC100Lx6 cells;
- Flow rates are based upon the standard condition of 37°C HW, 32°C CW, 28°C WB. For other condition please contact our sales office.
- Duty higher than SRC800L can be obtained by using multicell arrangement. Custom design box size of cooling tower are also available to meet customer's special requirement. For more information, please contact our sales office;
- All pedestals and central channel pedestal shall be at the same elevation. Tolerance in elevation and dimensions shall be within ±5mm;
- The noise measurement point is the location of cooling tower equivalent to diameter Dm ($Dm=1.13(L \times W)^{1/2}$)m, where L and W are the length and width of tower, height is 1.5m;
- Optional design outlet flange dimension of the cooling tower to meet customer's special requirement.

SRC series single fan cell foundation drawing

SRC-80L~SRC-400L



SRC-450L~SRC-800L

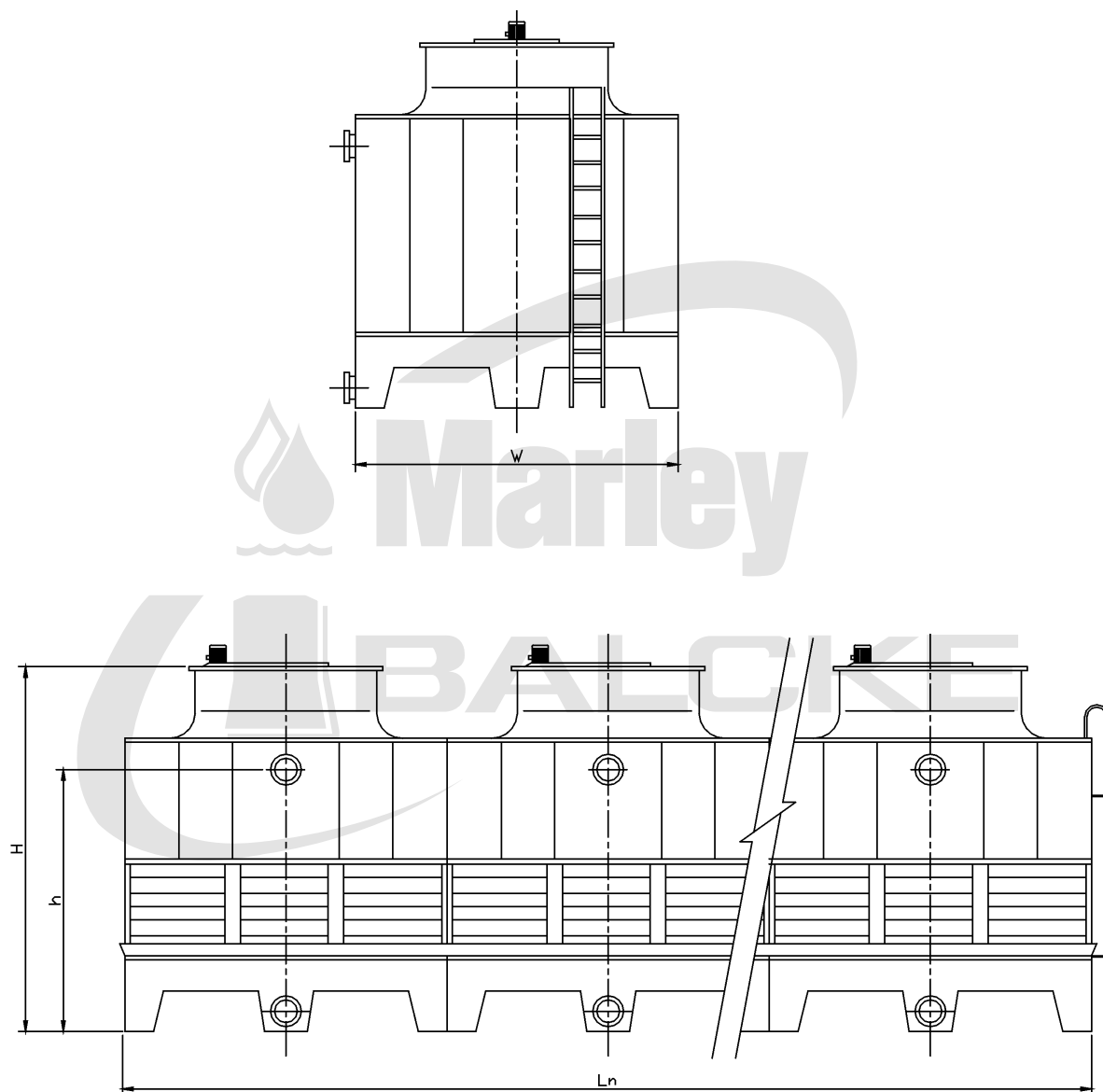


Model	SRC-80L	SRC-100L	SRC-125L	SRC-150L	SRC-175L	SRC-200L	SRC-225L	SRC-250L	SRC-300L	SRC-350L	SRC-400L	SRC-450L	SRC-500L	SRC-600L	SRC-700L	SRC-800L
W ₁	1050	1050	1300	1300	1450	1450	1805	1805	1805	2000	2150	1670	1670	2083	2287	2477

Note:

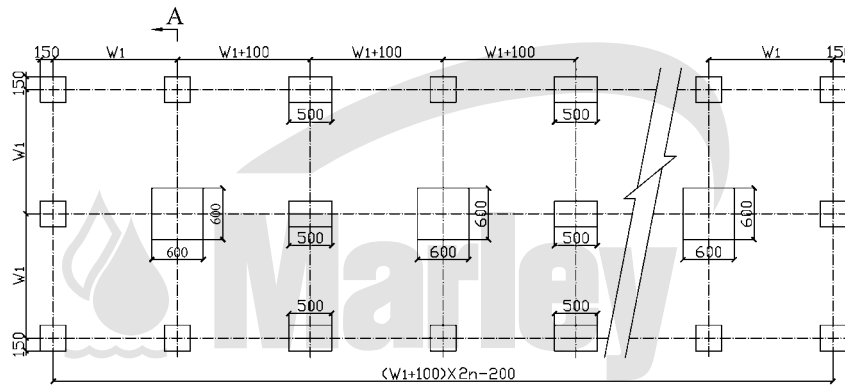
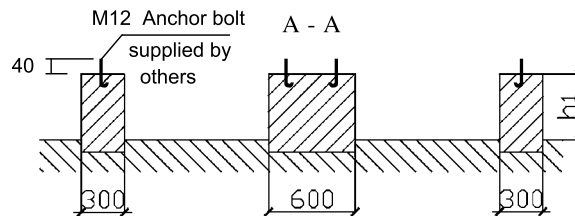
1. All the concrete plinth shall be at the same elevation. Tolerance in elevation and dimension shall be within $\pm 5\text{mm}$.
2. The height of foundation depends on the diameter of outlet main pipe and its installation elevation.

Multi-cells outline drawing



SRC-80L ~ SRC-400L Multi-cells outline and foundation drawing

Multi-cells concrete foundation drawing



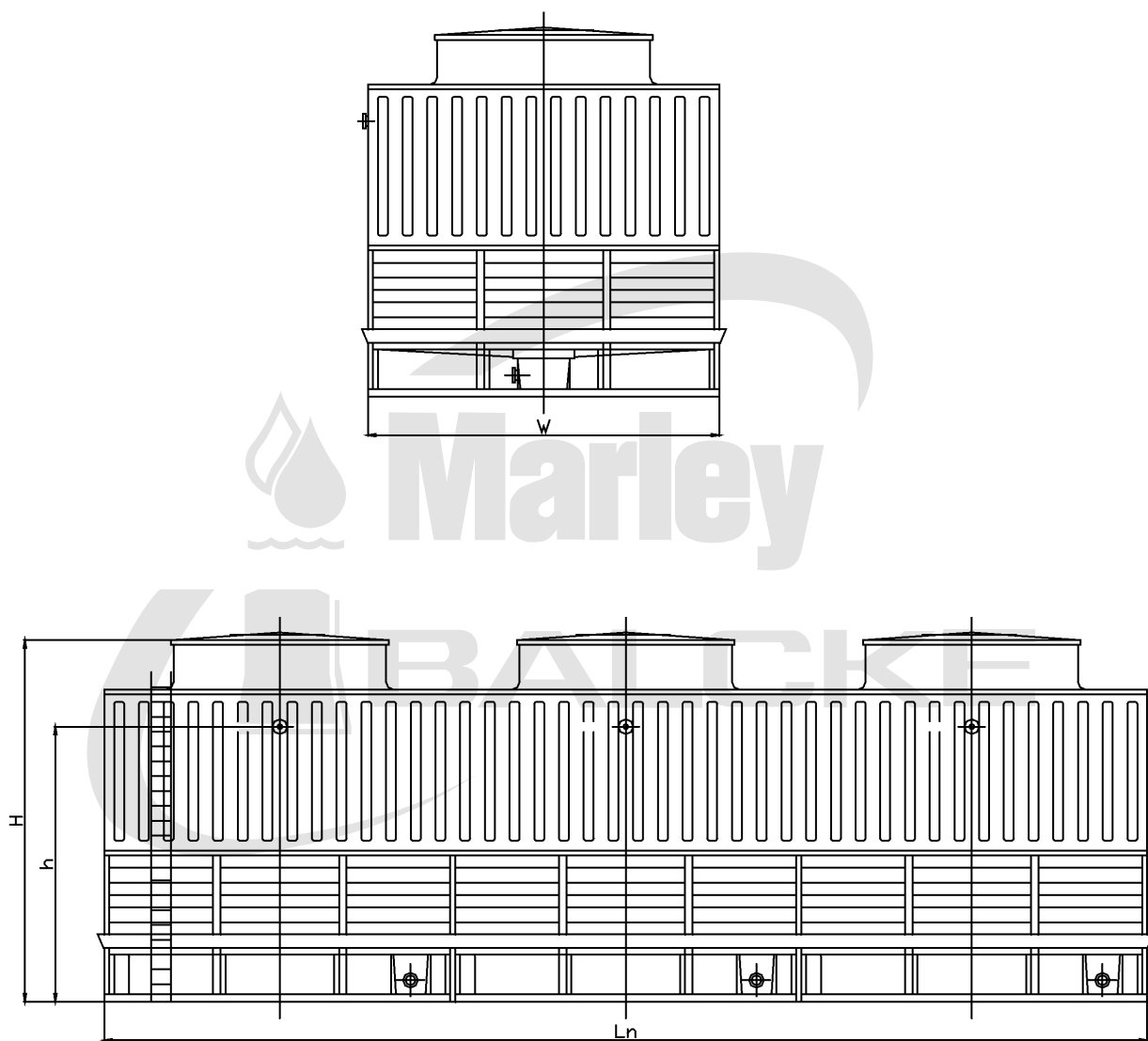
Item	SRC-80Lxn	SRC-100Lxn	SRC-125Lxn	SRC-150Lxn	SRC-175Lxn	SRC-200Lxn	SRC-225Lxn	SRC-250Lxn	SRC-300Lxn	SRC-350Lxn	SRC-400Lxn
L_n	2300 x n	2300 x n	2800 x n	2800 x n	3100 x n	3100 x n	3810 x n	3810 x n	3810 x n	4200 x n	4500 x n
W	2300	2300	2800	2800	3100	3100	3810	3810	3810	4200	4500
H	4500	4500	4600	4600	4700	4700	4800	4800	4800	5000	5100
h	3430	3430	3430	3430	3430	3430	3430	3430	3430	3430	3430
W_1	1050	1050	1300	1300	1450	1450	1805	1805	1805	2000	2150

Note:

- "n" denotes number of cells;
- All the concrete plinth shall be at the same elevation, tolerance shall be within $\pm 5\text{mm}$.
- Custom design cooling towers are also available upon request. For more information, please contact our sales office.
- The height of foundation h_1 ($h_1 \geq 300$) depends on the diameter of outlet main pipe and its installation elevation.

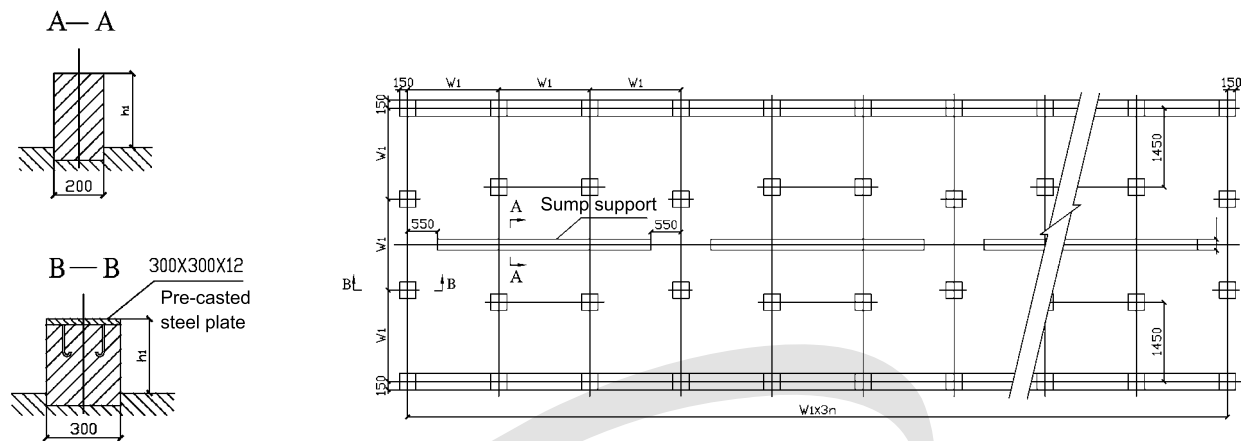
SRC-450L ~ SRC-800L multi-cells outline and foundation drawing

Multi-cells outline drawing



SRC-450L ~ SRC-800L multi-cells outline and foundation drawing

Multi-cells concrete foundation drawing

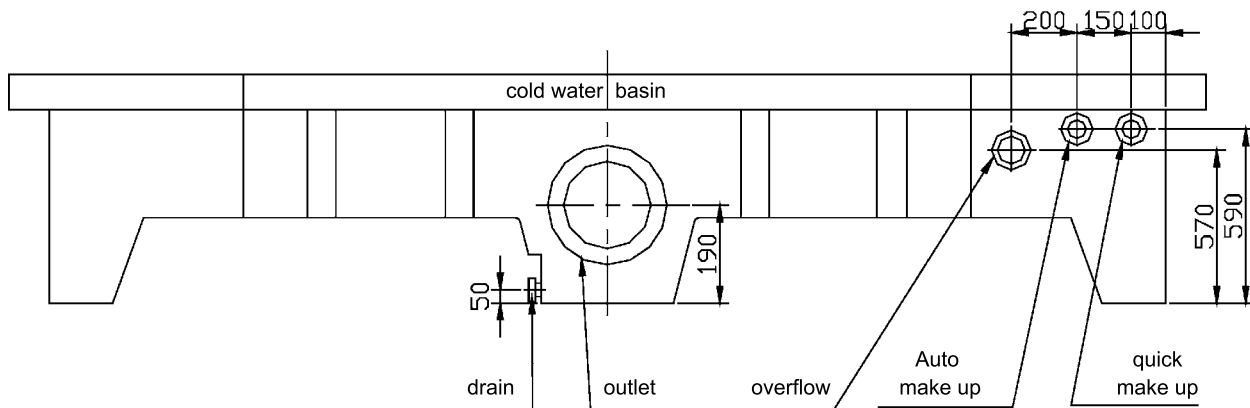


Item	SRC-450Lxn	SRC-500Lxn	SRC-600Lxn	SRC-700Lxn	SRC-800Lxn
L_n	$5010 \times n + 50$	$5010 \times n + 50$	$6250 \times n + 50$	$6860 \times n + 50$	$7430 \times n + 50$
W	5060	5060	6300	6910	7480
W_1	1670	1670	2083	2287	2477
$H(n=2)$	5430	5430	5860	5860	6345
$h(n=2)$	3545	3545	3915	3890	4175
$H(n \geq 3)$	5880	5880	6310	6310	6840
$h(n \geq 3)$	3995	3995	4365	4340	4670

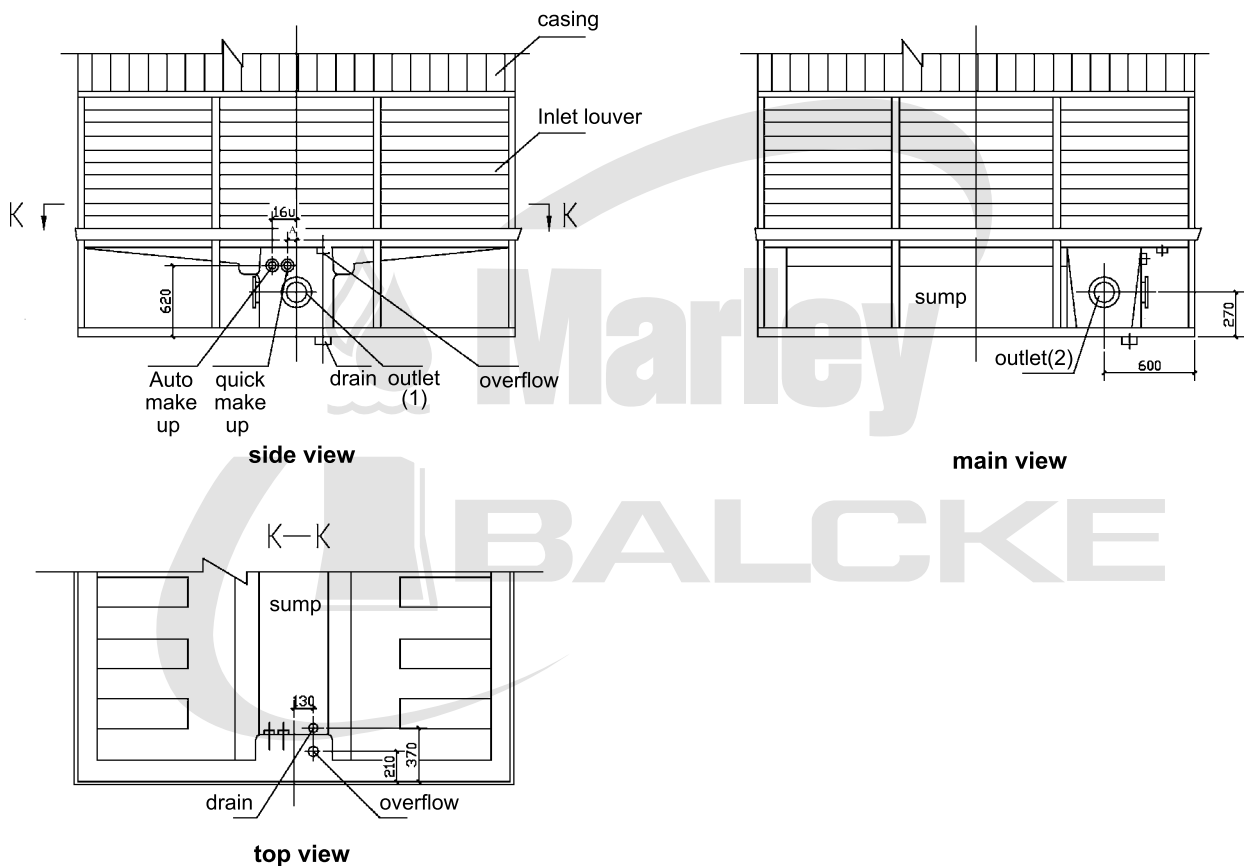
Note:

- "n" denotes number of cells;
- All the concrete plinth shall be at the same elevation, tolerance shall be within $\pm 5\text{mm}$.
- Custom design cooling towers are also available upon request. For more information, please contact our sales office.
- The height of air inlet would be increased as the sides of air inlet are changed when multi-cells, then H and h will be increased accordingly, which has been indicated in the above table.
- The height of foundation h_1 ($h_1 \geq 300$) depends on the diameter of outlet main pipe and its installation elevation.

SRC-80L ~ SRC-400L Single fan cell pipe location drawing



SRC-450L ~ SRC-800L single fan cell pipe location drawing



Model	SRC-450L	SRC-500L	SRC-600L	SRC-700L	SRC-800L
A (mm)	30	30	30	0	0

Note:

1. The pipe location is only for single cell;
2. For single fan model the customer can select the direction of water outlet either as (1) or as (2). If customer does not specify, the outlet direction shall be as (1);
3. For multi-cells tower, the direction of water outlet shall be as (2);
4. When different tower model shall be balancing with equalizer, please adjust the height of concrete foundation according to the operating water level to keep the water in the same level.

SRC series quick selection table

°F	In	100	100	100	98.6	98.6	97	97	95.9	95	95
	Out	90	90	90	89.6	89.6	87	87	86	85.1	86
	Wb	84	83	82	82.4	80.6	82	81	80.6	80.6	81

°C	In	37.8	37.8	37.8	37	37	36.1	36.1	35.5	35	35
	Out	32.2	32.2	32.2	32	32	30.6	30.6	30	29.5	30
	Wb	28.9	28.3	27.8	28	27	27.8	27.2	27	27	27.2

Model	KW	Flowrate m ³ /h									
		70	76	81	80	89	60	66	61	55	62
SRC-80	2	70	76	81	80	89	60	66	61	55	62
SRC-100	3	88	95	101	100	111	76	82	77	69	78
SRC-125	4	110	118	126	125	140	94	102	95	86	96
SRC-150	6	132	142	151	150	167	113	123	115	104	116
SRC-175	7.5	154	165	176	175	195	132	143	134	120	135
SRC-200	7.5	177	189	201	200	222	152	165	155	139	156
SRC-225	5.5	198	213	227	225	251	170	185	173	155	174
SRC-250	7.5	219	236	252	250	279	188	205	191	171	193
SRC-300	11	265	284	302	300	333	227	247	231	208	233
SRC-350	15	308	331	352	350	390	264	288	269	242	271
SRC-400	15	352	378	403	400	446	301	328	306	275	309
SRC-450	15	382	418	447	450	510	332	368	336	299	341
SRC-500	15	430	470	498	500	559	378	415	381	341	419
SRC-600	18.5	523	565	598	600	669	459	501	462	417	467
SRC-700	18.5	610	676	698	700	782	535	584	538	486	544
SRC-800	22	696	753	798	800	894	611	666	614	585	621

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