



OPEN CIRCUIT TOWER

- CROSSFLOW (BHD)
- COUNTERFLOW (BST, BND)

CLOSE CIRCUIT TOWER

- CROSSFLOW (SQBH, SQBF)
- COUNTERFLOW (SQBN)

COOLING TOWER **MANUFACTURER**



Know About Us

SUPER TOWER INDUSTRIES PTE LTD is established as a professional company that manufactures cooling towers in Singapore, Malaysia and China. We have been actively involved in supplying, installing, and maintaining top-quality cooling towers in South-East Asia market.

Our products are certified and registered as a Cooling Technology Institute (CTI) Member (C116A-23R00) in the U.S.A. We hold a unique position in the industry. Not only do we supply, install, and maintain Cooling Towers, but our factories in Singapore, Malaysia and China also manufacture all kinds of cooling towers, such as FRP Bottle type, Counterflow round type, Crossflow square type, special custom-made types, and other spare parts for all kinds of Cooling Towers. We also design Smart Cooling Towers to provide our customers with the best energy-efficient system without compromising the comfort of cooling in their living environments. We are proud to announce that we are able to provide 24/7 cooling tower performance with cloud-based control.

Our powerful state-of-the-art Digital Technology and Smart HVAC system seamlessly integrate into your building facilities, saving energy and manpower in operations. We are known for being energy-saving, compact, and lightweight, with reduced noise pollution. Our cooling towers are also corrosion-resistant, fire-proof, and quakeproof. We provide easy access to all kinds of Cooling Tower spare parts, such as Sprinkler heads, Sprinkler pipes, Suction Strainers, PVC infill, fan assembly, Drift eliminators, etc.

New regulations were imposed by the Environmental Protection Agency (ENV) in Singapore to control Legionnaires' Disease in all cooling towers under Chapter 95 of the act. SUPER TOWER INDUSTRIES is pleased to introduce and highlight our innovative design for supplying all makes and models of round and square Cooling Tower's Drift Eliminator based on the latest ENV Regulation.

SUPER TOWER INDUSTRIES management spirit is firmly grounded in the belief that we must offer only the highest quality services to our clients and engage in business relationships that are not only beneficial to ourselves but also to our clients. This principle has been the guiding influence on all of our business strategies and goals. As part of our commitment to leveraging cutting-edge smart technology, we are pleased to offer our clients a range of preventive and predictive measures for their on-site cooling towers. Our advanced system is designed to identify potential issues before they arise, allowing us to take proactive steps to ensure the efficient operation of your equipment and minimize the risk of unexpected downtime. With our expert team and state-of-the-art technology, you can trust us to deliver reliable and effective cooling tower solutions that meet your unique needs and exceed your expectations.

Our Mission

- ***Total Customer Satisfactoriness***
- ***Excellent Quality***
- ***Speedy Response***
- ***Price Competitiveness***
- ***Good Teamwork***
- ***Best Energy-Efficiency with 4 ticks SGBC***

Cooling Tower

A cooling tower is a distinctive type of heat exchanger that enables water and air to interact with each other to reduce the temperature of hot water. During this process, small volumes of water evaporate, lowering the temperature of the circulating water in the cooling tower. In short, a cooling tower cools down water that becomes overheated by industrial equipment.

SUPER TOWER INDUSTRIES primarily offers common induced draft cooling tower systems, which are commonly used in large office buildings, hotels, condominiums, HDBs, hospitals, shopping malls, and other industrial processes and facilities. Our available cooling tower systems are as follows:



Models

- Open Circuit Crossflow Cooling Towers
 - # BHD Series (Low Noise and Super Low Noise Square Type)
- Open Circuit Counter Flow Cooling Towers
 - # BST Series (Low Noise and Super Low Noise Square Type)
 - # BND Series (Standard Low Noise Round Type)
- Closed Circuit Crossflow Cooling Towers
 - # SQBF Series (Both Side Air Entry Square Type)
 - # SQBH Series (Single Side & Top Side Air Entry Square Type)
- Closed Circuit Counter Flow Cooling Towers
 - # SQBN Series (Both side Air Entry Square Type)

SUPER TOWER INDUSTRIES also offers custom-made cooling towers that suit your requirements, using special FRP legs instead of steel legs for square towers to prevent corrosion and lower the overall height of the cooling tower to suit your application.

have experience in offering high-quality spare parts and long-term cost-efficient services to our clients, making us one of the reliable service providers across the country.

In addition to manufacturing new cooling towers, we also provide replacement, refurbishment, and enhancement services for old towers, utilizing advanced innovation to achieve better outcomes

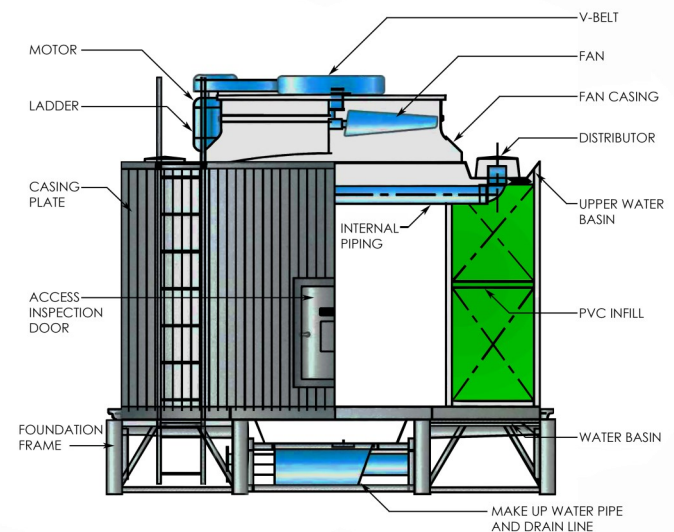
Features - Square cross-flow low & super low noise tower series

BHD Series works by circulating warm water caused via cooling condensers is tapped through the hot water distribution piping directly into the cooling tower. The upper water basin located normally on top of the vertically layered PVC Infills containing with holes and nozzles (optional) at the bottom side are utilized to distribute water equally over the infills through gravity force. Outside air flows horizontally through the layered infills from both sides and perpendicular to the water flowing downward resulting a cross flow interaction of air and water in which the induced air takes out the warm vapor and cools the hot water hence the heat transfer process occurs. The warm air inside is then being pulled out by an electric motor-driven cooling tower fan. The colder water collected in the lower water basin gets pumped back to the cooling condensers and reiterates the process to constantly cool down the condensers.

Structural Model

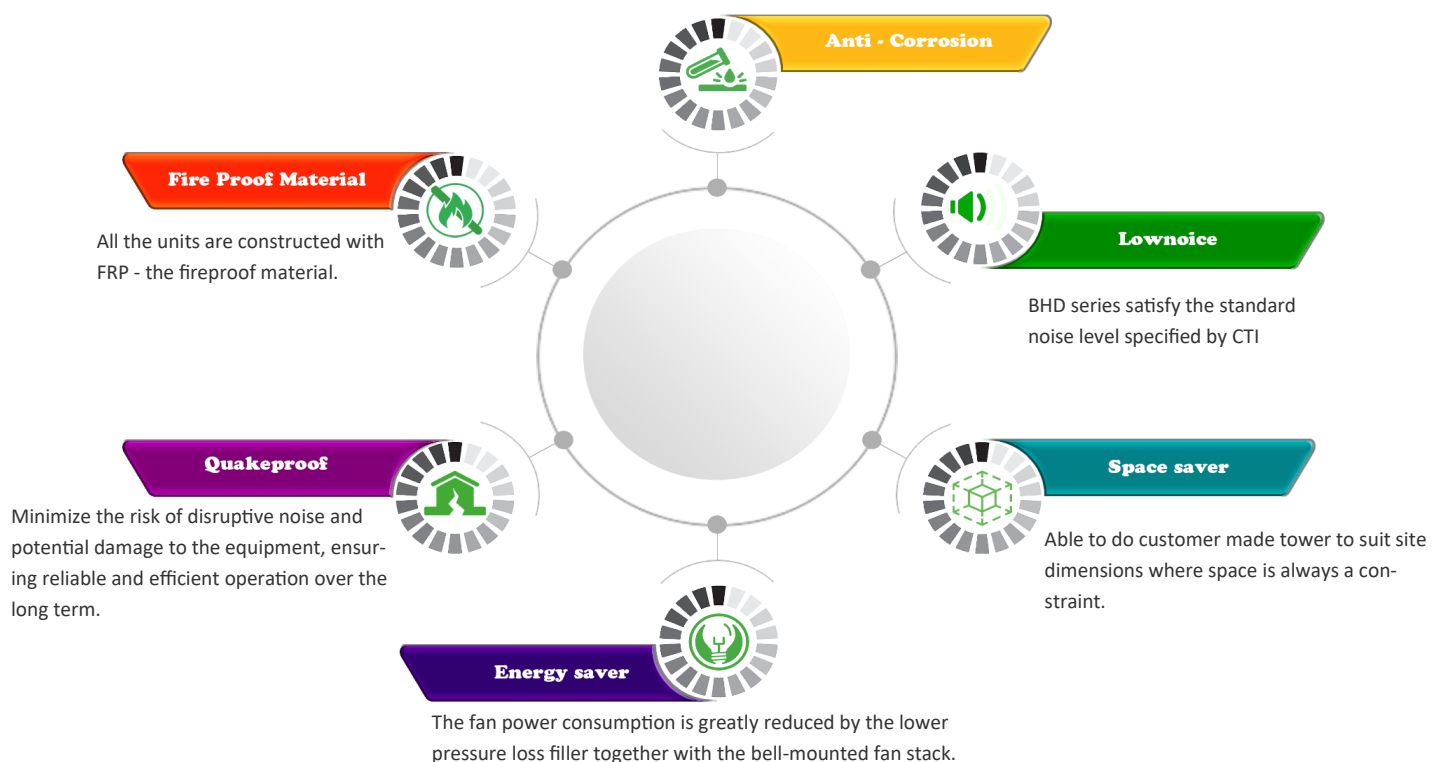
Key Features

1. Certified by COOLING TECHNOLOGY INSTITUTE (C166A-23R00)
2. Leader for efficient cooling towers awarded certification from SGBC (SGBP 5094)
3. Visual inspection / Checking is easy and accessible.
4. Entire cooling tower height is lower and suitable.
5. Custom-made size choices are available for customers.
6. Flexibility to adjust the height of the CT (Cooling Tower)



All the main components are made of the anti-corrosive materials such as FRP and HDG steel.

Advantages



BHD Series

Square cross-flow low & super low noise series - Technical Specifications

No.	Model	Dimensions (mm)			Motor	Fan Dia.	Piping Diameter mm DN x no				Weight (kkg)		dB
	BHD-t	L	W	H	415/50 Hz Kw x no	Ø mm x no (mm)	Inlet x no (mm)	Outlet x no (mm)	Drain Overflow (mm)	Manual Auto (mm)	Dry	Wet	
1	BHD-50t	1200	2170	3600	1.5×1	900×1	80×1	80×1	40/40×1	20/20×1	0.39	1.09	54
2	BHD-75t	1500	2470	3600	2.2×1	1100×1	100×1	100×1	40/40×1	20/20×1	0.53	1.43	54
3	BHD-85t	1500	2470	3600	2.2×1	1200×1	100×1	100×1	40/40×1	25/25×1	0.58	1.43	55
4	BHD-100t	1500	2470	3720	3.0×1	1300×1	100×1	100×1	40/40×1	25/25×1	0.67	1.6	55
5	BHD-125t	1800	2770	4080	3.0×1	1500×1	125×1	125×1	40/40×1	25/25×1	0.84	1.8	55
6	BHD-150t	1800	2770	4080	4.0×1	1500×1	150×1	150×1	40/40×1	32/32×1	0.89	1.84	56
7	BHD-175t	1900	2810	4080	4.0×1	1600×1	150×1	150×1	40/40×1	32/32×1	1.01	2.16	56
8	BHD-200t	2310	3210	4100	5.5×1	1800×1	150×1	150×1	40/40×1	32/32×1	1.17	2.27	56
9	BHD-225t	2310	3210	4100	5.5×1	1900×1	150×1	150×1	40/40×1	32/32×1	1.27	2.37	57
10	BHD-250t	2590	3520	4250	5.5×1	2000×1	200×1	200×1	50/50×1	40/40×1	1.39	3.49	57
11	BHD-275t	2590	3520	4250	5.5×1	2100×1	200×1	200×1	50/50×1	40/40×1	1.49	3.69	57
12	BHD-300t	2700	4600	4950	7.5×1	2400×1	200×1	200×1	50/50×1	40/40×1	1.79	4.32	64
13	BHD-350t	2700	4600	5550	11.0×1	2400×1	200×1	200×1	50/50×1	40/40×1	2	4.82	66
14	BHD-400t	3100	5600	4900	11.0×1	2800×1	250×1	250×1	50/50×1	40/40×1	2.64	6.45	68
15	BHD-450t	3100	5600	5450	11.0×1	2800×1	250×1	250×1	80/80×1	50/50×1	2.95	7.26	68
16	BHD-500t	3200	6200	5450	15.0×1	3000×1	250×1	250×1	80/80×1	50/50×1	3.37	8.22	70
17	BHD-600t	3800	6800	5510	18.5×1	3400×1	300×1	300×1	80/80×1	50/50×1	3.51	8.6	72
18	BHD-700t	4000	7000	5580	22.0×1	3800×1	300×1	300×1	80/80×1	50/50×1	3.73	9.3	72
19	BHD-800t	4500	7500	5980	22.0×1	4200×1	300×1	300×1	80/80×1	50/50×1	4.28	10.5	74
20	BHD-900t	5300	8300	6300	22.0×1	5000×1	300×1	300×1	80/80×1	50/50×1	5.1	12.25	75
21	BHD-1000t	6400	6200	5450	15.0×2	3000×2	250×2	250×2	80/80×2	50/50×2	6.74	16.44	75
22	BHD-1200t	7600	6800	5510	18.5×2	3400×2	300×2	300×2	80/80×2	50/50×2	7.02	17.2	75
23	BHD-1500t	9600	6200	5450	15.0×3	3000×3	250×3	250×3	80/80×3	50/50×3	10.11	24.66	75
24	BHD-1800t	11400	6800	5510	18.5×3	3400×3	300×3	300×3	80/80×3	50/50×3	10.53	25.8	75
25	BHD-2000t	12800	6200	5450	15.0×4	3000×4	250×4	250×4	80/80×4	50/50×4	13.48	32.88	75
26	BHD-2500t	16000	6200	5510	15.0×5	3000×5	250×5	250×5	80/80×5	50/50×5	16.85	41.1	75
27	BHD-3000t	19200	6200	5450	15.0×6	3000×6	250×6	250×6	80/80×6	50/50×6	20.22	49.32	75

Design Criteria :

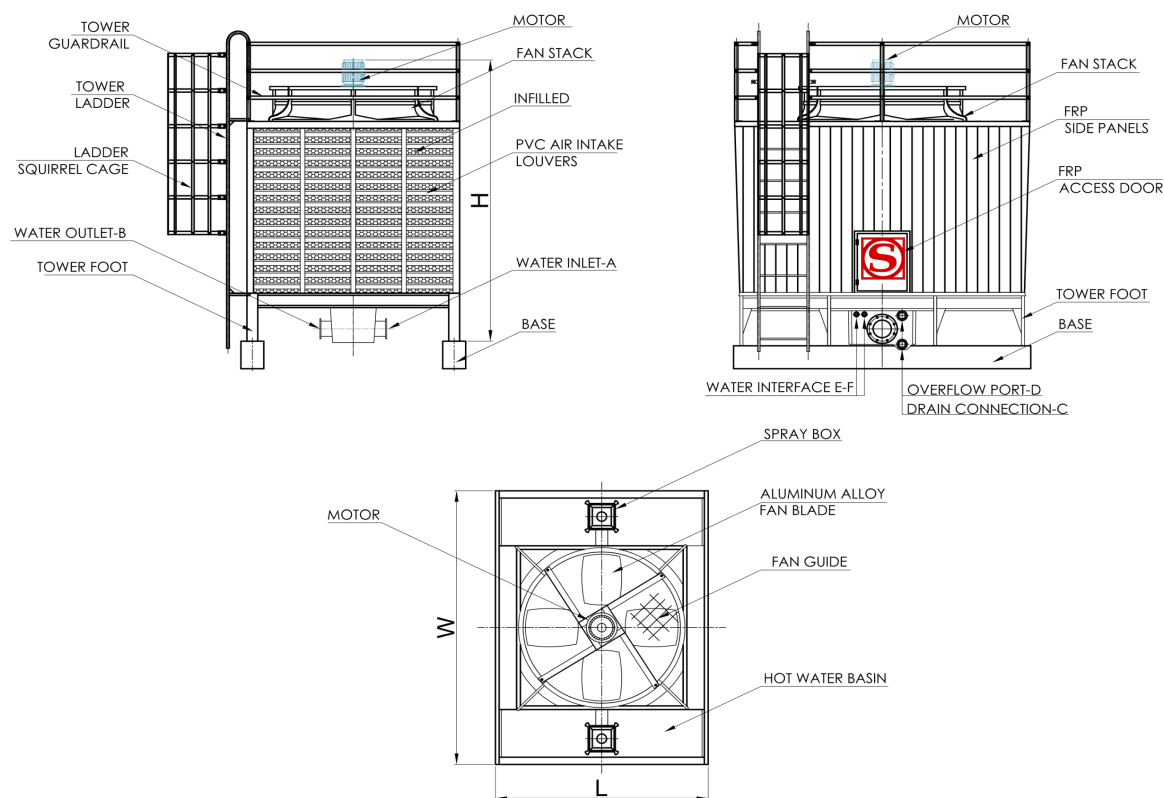
- Noise: refers to the intensity of the running sound 1.5 meters high and 16 meters away from the tower.
- Design conditions: hot water temperature 37°C, cold water temperature 32°C, air wet bulb temperature 27°C, atmospheric pressure 1.004×10^5 pa.
- Tower types with more circulating water can be scientifically combined according to the models in this table.
- Due to continuous technical improvement, the technical data in the manual is subject to change.

Square cross-flow low & super low noise series - Design Selection

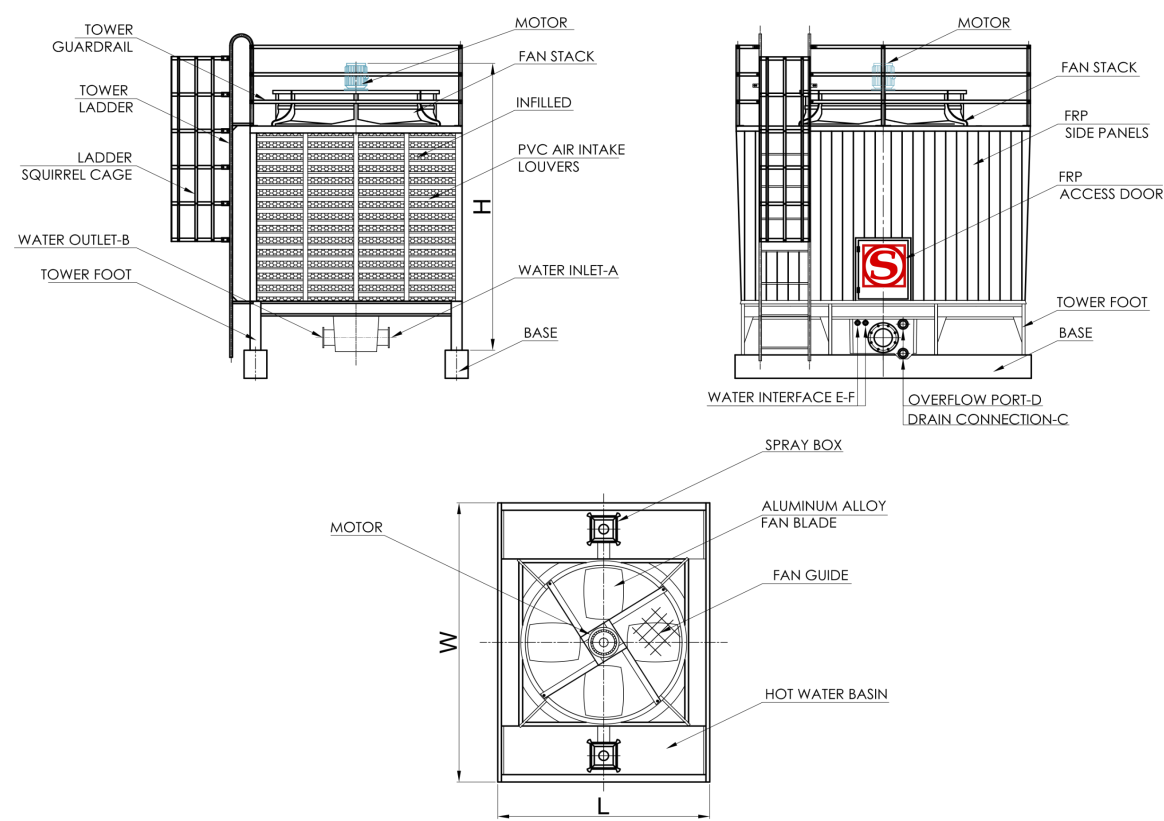
Model	Wet bulb 27°C						Water Flow L/s					Wet bulb 28°C				Water flow L/s		Dimensions (mm) Form factor		
	Inlet Temp	37	38	40	42	45	35	40	35	43	45	37	38	43	45	35	35			
	Outlet Temp	32	32	32	32	32	30	30	29.5	33	35	32	32	33	35	29.5	30	L	W	H
BHD-50t		11.6	10.4	8.9	8.1	7.3	8.1	5.9	6.9	9.2	11.6	10.2	9.3	8.5	10.9	5.5	6.6	1200	2170	3500
BHD-75t		16.2	14.6	12.5	11.3	10.1	11.3	8.2	9.6	12.9	16.2	14.3	12.9	11.8	15.1	7.6	9.2	1500	2470	3450
BHD-85t		17.4	15.6	13.4	12.1	10.8	12.1	8.7	10.3	13.8	17.4	15.4	13.9	12.6	16.2	8.1	9.8	1500	2470	3500
BHD-100t		19.1	17.1	14.6	13.1	11.7	13.1	9.4	11.1	15	18.9	16.8	15.1	13.7	17.7	8.8	10.7	1500	2470	3500
BHD-125t		26.2	23.5	20.1	17.9	16	17.9	13	15.2	20.4	25.8	23.1	20.8	18.7	24.1	12	14.6	1800	2770	3600
BHD-150t		29	26	22.2	19.6	17.5	19.9	14.2	16.7	22.5	28.4	25.5	23	20.6	26.5	13.2	16.1	1800	2770	4100
BHD-175t		32.3	28.9	24.6	21.8	19.3	21.9	15.6	18.5	24.9	31.5	28.3	25.5	22.7	29.2	14.5	17.8	1900	2810	4200
BHD-200t		38	34	29	25.7	22.9	25.8	18.6	21.9	29.4	37.2	33.4	30.1	26.9	34.7	17.2	21	2310	3210	4300
BHD-225t		43	38.4	32.6	28.8	25.5	29.1	20.6	24.6	33	41.8	37.7	33.9	30.1	39	19.2	23.6	2310	3210	4300
BHD-250t		47.7	42.6	36.2	32	28.3	32.3	22.9	27.3	36.6	46.4	41.9	37.7	33.4	43.3	21.3	26.2	2590	3520	4300
BHD-275t		50.9	45.4	38.5	33.9	30	34.3	24.3	28.9	38.9	49.3	44.6	40	35.4	46	22.6	27.8	2590	3520	4300
BHD-300t		58	51.9	44.3	39.3	35	39.8	28.4	33.4	45	56.8	51	46	41.1	53.1	26.3	32.1	2700	4600	4000
BHD-350t		67.7	60.6	51.7	45.8	40.8	46.5	33.1	39	52.5	66.2	59.5	53.7	48	61.9	30.7	37.5	2700	4600	4500
BHD-400t		77.3	69.3	59.1	52.4	46.7	53.1	37.9	44.6	60	75.7	68	61.3	54.8	70.7	35.1	42.8	3100	5600	4000
BHD-450t		87	77.9	66.5	58.9	52.5	59.8	42.6	50.2	67.5	85.2	76.5	69	61.7	79.6	39.5	48.2	3100	5600	4500
BHD-500t		96.7	86.6	73.9	65.5	58.3	66.4	47.3	55.7	75	94.6	85	76.7	68.5	88.4	43.9	53.5	3200	6200	5000
BHD-600t		116	103.9	88.7	78.6	70	79.7	56.8	66.9	90	113.6	102	92	82.2	106.1	52.7	64.2	3800	6800	5000
BHD-800t		135.3	121.2	103.4	91.6	81.7	92.9	66.2	78	105	132.5	119	107.3	95.9	123.8	61.4	74.9	4000	7000	5000
BHD-900t		154.7	138.5	118.2	104.7	93.3	106.2	75.7	89.2	120	151.4	136	122.7	109.6	141.5	70.2	85.6	4500	7500	5000
BHD-1000t		174	155.8	133	117.8	105	119.5	85.2	100.3	135	170.3	153	138	123.3	159.2	79	96.3	5300	8300	5000
BHD-1200t		193.3	173.1	147.8	130.9	116.7	132.8	94.6	111.5	150	189.3	170	153.3	137	176.9	87.8	107	6400	6200	5000
BHD-1500t		232	207.8	177.3	157.1	140	159.3	113.6	133.8	180	227.1	204	184	164.4	212.2	105.3	128.4	7600	6800	5000
BHD-2000t		290	259.7	221.7	196.4	175	199.2	141.9	167.2	225	283.9	255	230	205.6	265.3	131.7	160.6	9600	6200	5000
BHD-2500t		348	311.7	266	235.7	210	239	170.3	200.7	270	340.7	306	276	246.7	318.3	158	192.7	11400	6800	5000
BHD-3000t		386.7	346.3	295.6	261.9	233.3	265.6	189.3	223	300	378.5	340	306.7	274.1	353.7	175.6	214.1	12800	6200	5000

BHD Series

Square cross-flow low & super low noise tower series outline drawing

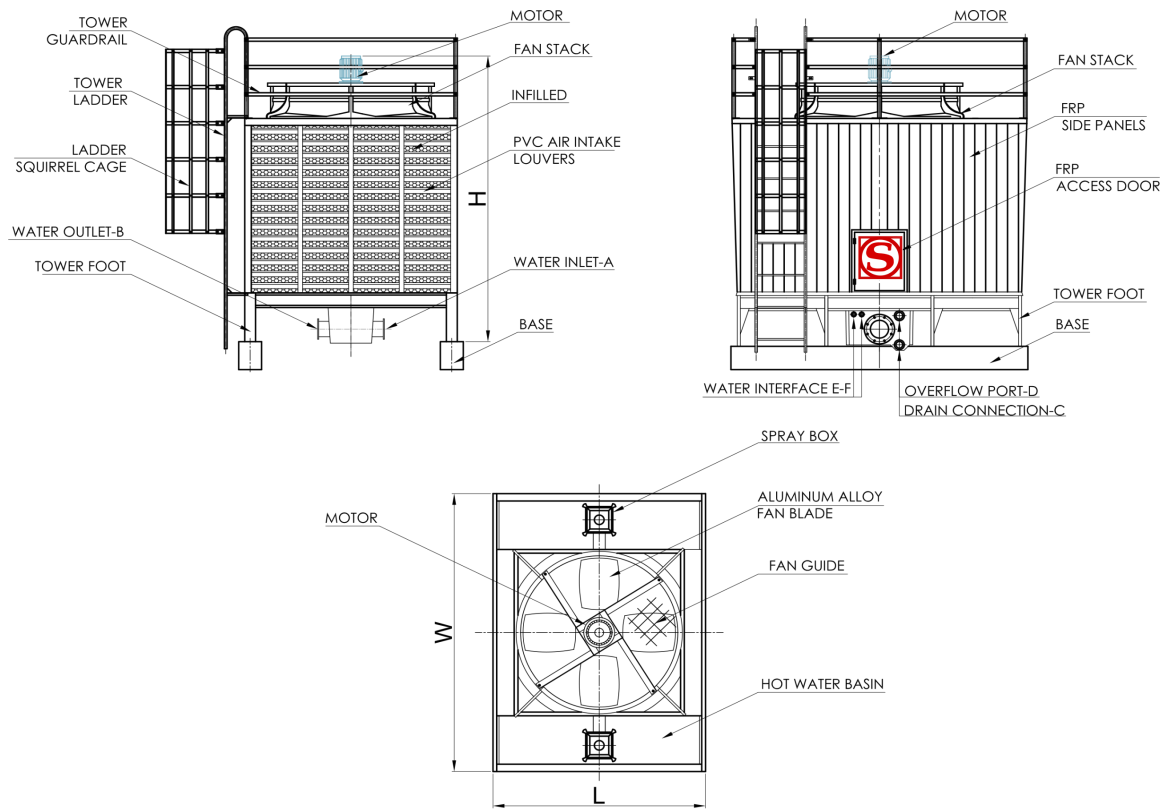


BHD-50T-100T (ONE FAN-CELL)

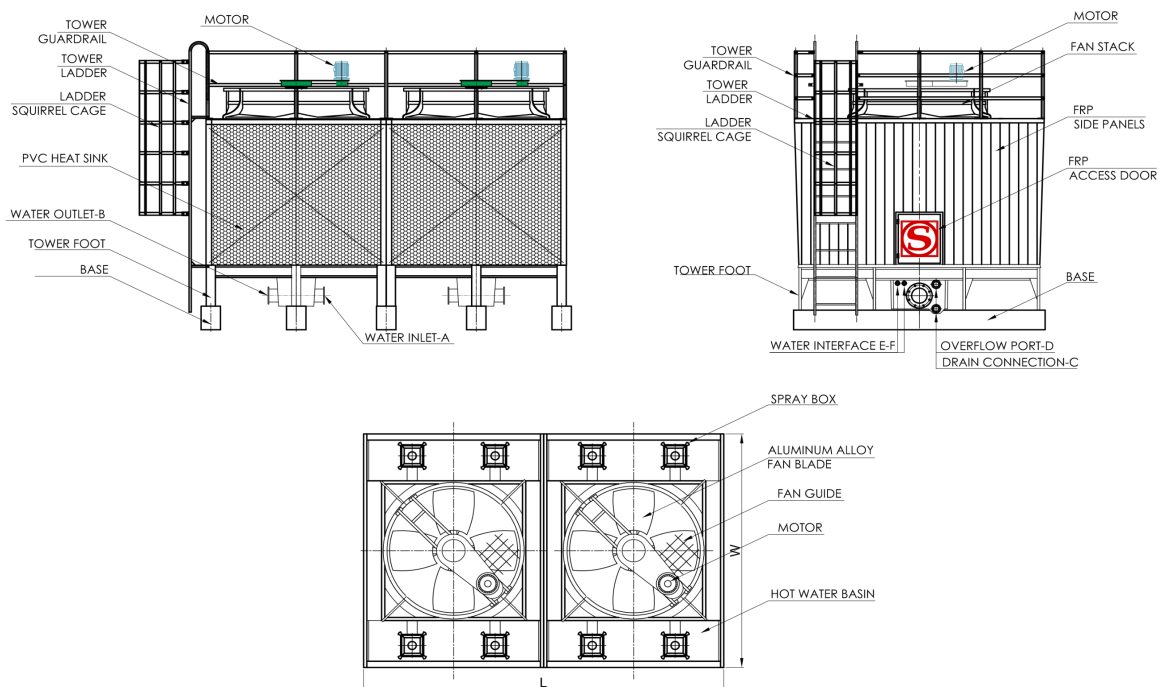


BHD-125-275T (ONE FAN-CELL)

Square cross-flow low & super low noise tower series outline drawing



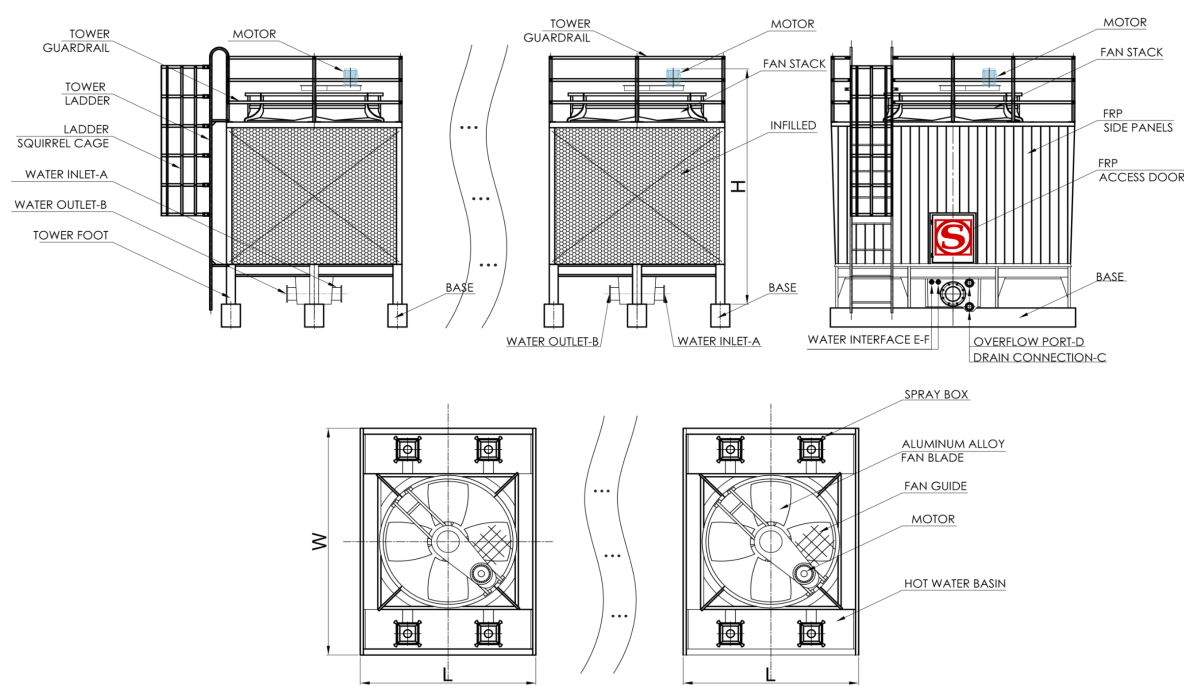
BHD-300-900T (ONE FAN-CELL)



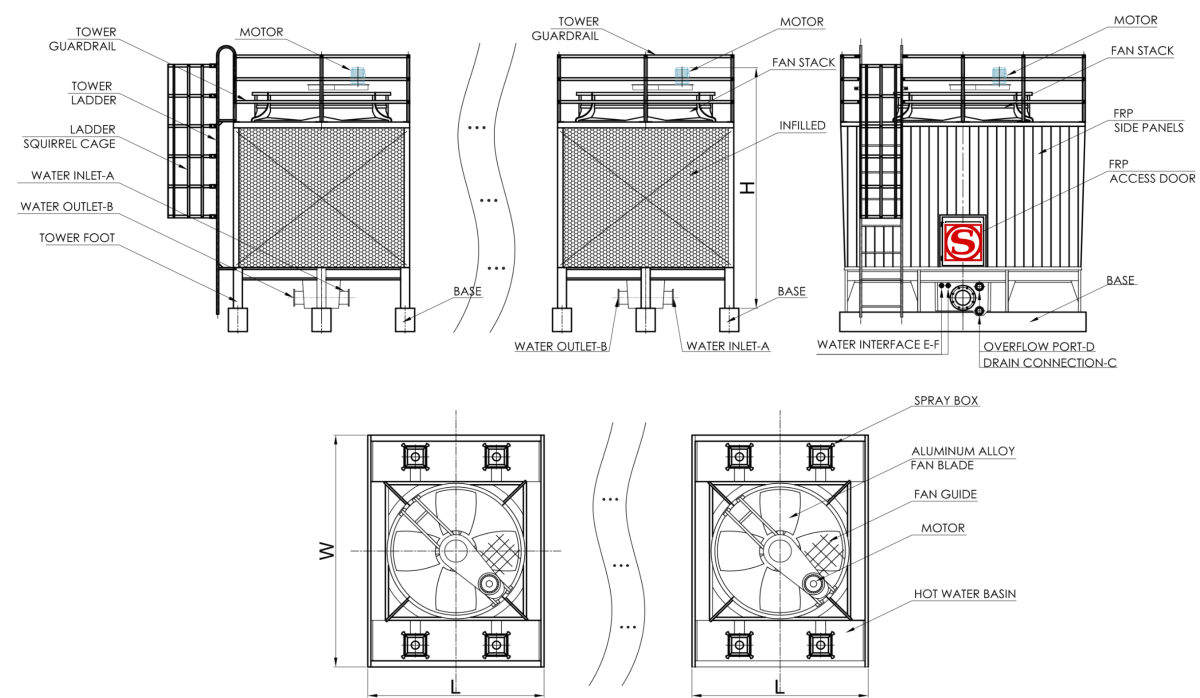
BHD-1000-1200T (TWO FAN-CELL)

BHD Series

Square cross-flow low noise tower series outline drawing

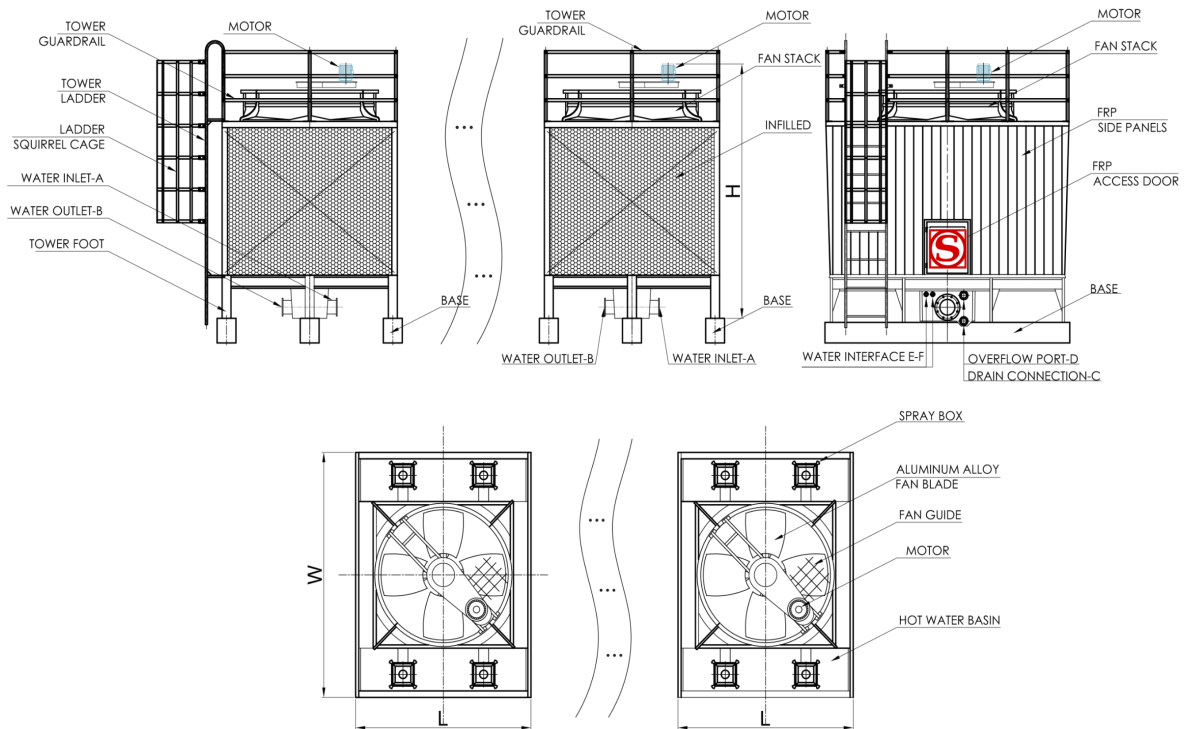


BHD-1500-1800T (THREE FAN-CELL)

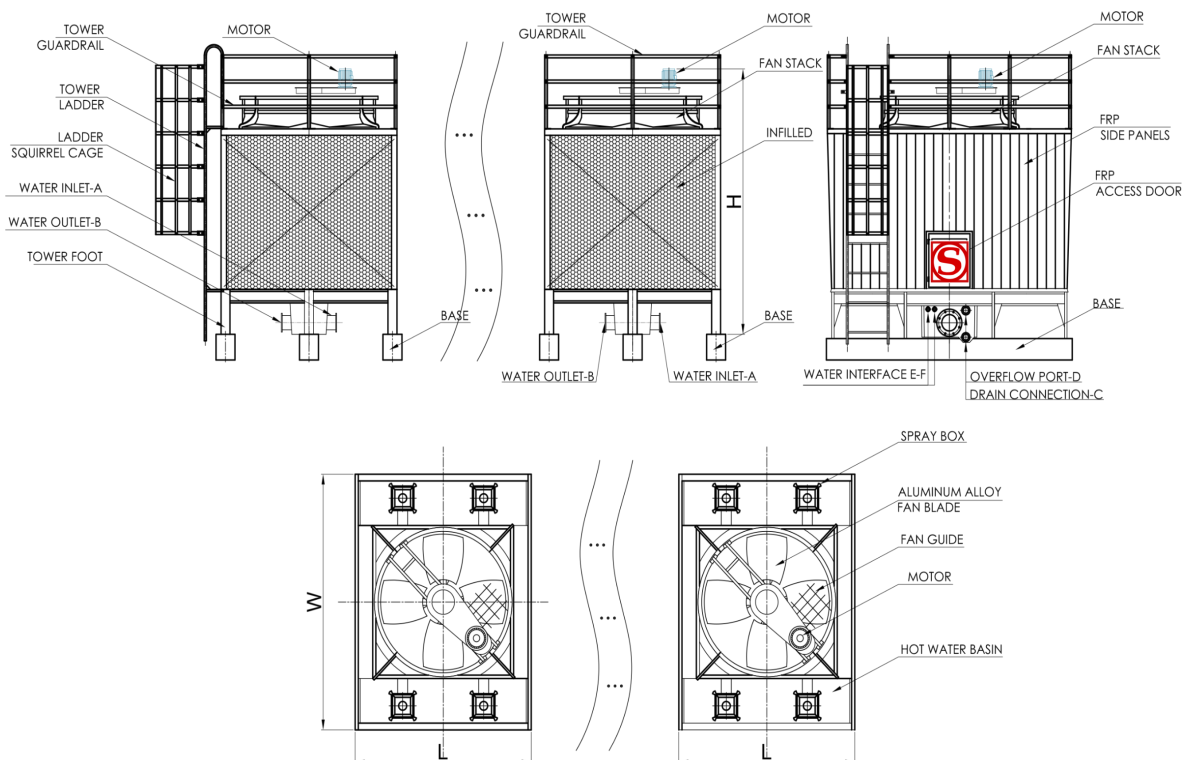


BHD-2000T (FOUR FAN-CELL)

Square cross-flow low noise tower series outline drawing



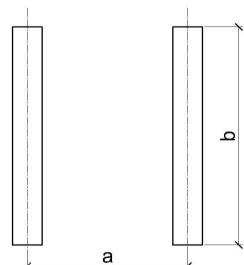
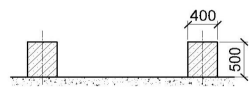
BHD-2500T (FIVE FAN-CELL)



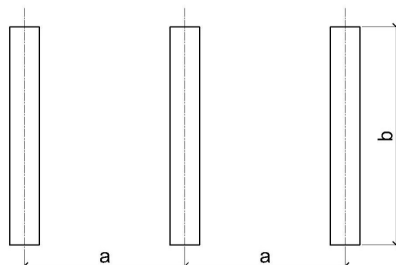
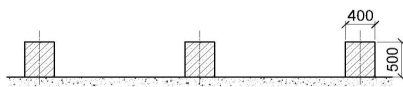
BHD-3000T (SIX FAN-CELL)

BHD Series

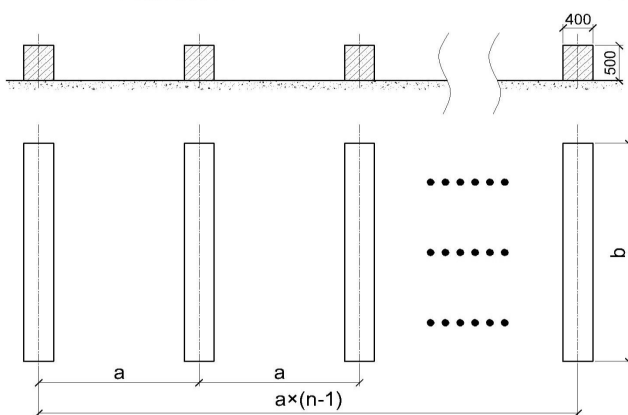
Square cross-flow low noise tower series foundation drawing



PICTURE 1



PICTURE 2



PICTURE 3

- Note: 1. The foundation is concrete foundation;
2. The elevation of the foundation surface should be on the same level, and the allowable horizontal error is $\pm 5\text{mm}$;
3. The elevation of the outlet main pipe should be lower than the elevation of the top surface of the foundation.

Foundation Specifications

Model	Center distance	length	Number of base bars	Figure number
	$a(\text{mm})$	$b(\text{mm})$	n	
BHD-50t	1200	2500	2	picture 1
BHD-75t	1500	2800	2	
BHD-85t	1500	2800	2	
BHD-100t	1500	2800	2	
BHD-125t	1800	3100	2	
BHD-150t	1800	3100	2	
BHD-175t	1900	3200	2	
BHD-200t	2300	3500	2	
BHD-225t	2300	3500	2	
BHD-250t	2600	3800	2	
BHD-275t	2600	3800	2	
BHD-300t	2700	4900	2	
BHD-350t	2700	4900	2	

Model	Center distance	length	Number of base bars	Figure number
	$a(\text{mm})$	$b(\text{mm})$	n	
BHD-400t	1550	5900	3	picture 2
BHD-450t	1550	5900	3	
BHD-500t	1600	6500	3	
BHD-600t	1900	7100	3	
BHD-700t	2000	7300	3	
BHD-800t	2250	7800	3	
BHD-900t	2650	8600	3	
BHD-1000t	1600	6500	5	picture 3
BHD-1200t	1900	7100	5	
BHD-1500t	1600	6500	7	
BHD-1800t	1900	7100	7	
BHD-2000t	1600	6500	9	
BHD-2500t	1600	6500	11	
BHD-3000t	1600	6500	13	

Smart Cooling Tower

Introducing Smart Cooling Tower :

We are proud to offer a cutting-edge solution in the world of smart cooling tower management. With advanced technology and expertise, we strive to revolutionize the way cooling tower operate, providing 24/7 individual tower capacity readiness and predictive/preventive maintenance for optimal performance.

Key Feature of Optimal Cooling Tower Performance

Monitoring & Control

Our Smart Cooling system incorporates real-time monitoring of critical parameters such as inlet temperature, outlet temperature, wet bulb temperature, and water flow rate. This comprehensive data allows us to precisely assess the cooling load of the tower. By continuously monitoring these key factors, we ensure that your cooling tower operates at peak efficiency.

Predictive & Preventive

With Smart Cooling, we take a proactive approach to maintenance. By analyzing the real-time data collected from your cooling tower. Our advanced algorithms and predictive maintenance models enable us to identify maintenance needs, anticipate component failures, and schedule repairs or replacements in a timely manner. This approach significantly reduces the risk of unexpected breakdowns, extends the lifespan of your equipment, and minimizes costly emergency repairs.

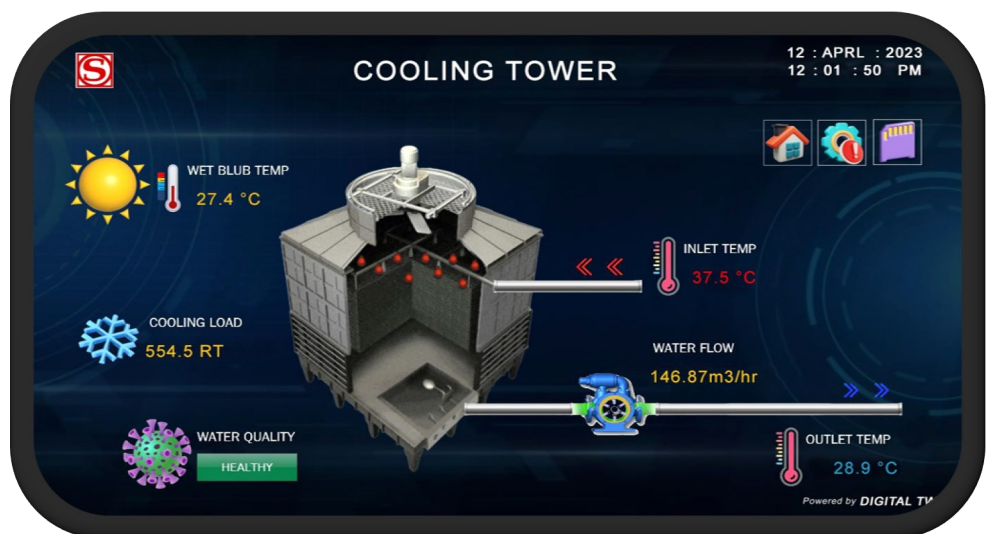
Real-Time Insights

Our Smart Cooling system provides you with accurate and up-to-date insights into the performance of your cooling tower. By leveraging this information, your Facilities and Management team can make informed decisions regarding energy consumption, system optimization, and overall efficiency enhancements. This empowers you to optimize resource allocation, reduce energy costs, and improve the sustainability of your cooling operations.

Integration & Customization

We understand that every facility has unique requirements. That's why our Smart Cooling solution is designed to seamlessly integrate with your existing cooling tower infrastructure. Whether you have a single cooling tower or a complex network of towers, our system can be tailored to meet your specific needs. We work closely with your team to ensure a smooth implementation process, minimal disruption, and maximum benefits.

we believe that Smart Cooling is the future of cooling tower management. With our advanced technology, real-time monitoring capabilities, and proactive maintenance approach, we empower you to achieve optimal performance, energy efficiency, and peace of mind. Experience the difference that Smart Cooling can make for your facility.



Contact us today to learn more about our Smart Cooling solution and how it can transform your cooling tower operations. Let us help you take control of your cooling system like never before.

BST Series

Features - Square counter-flow low and super low noise series

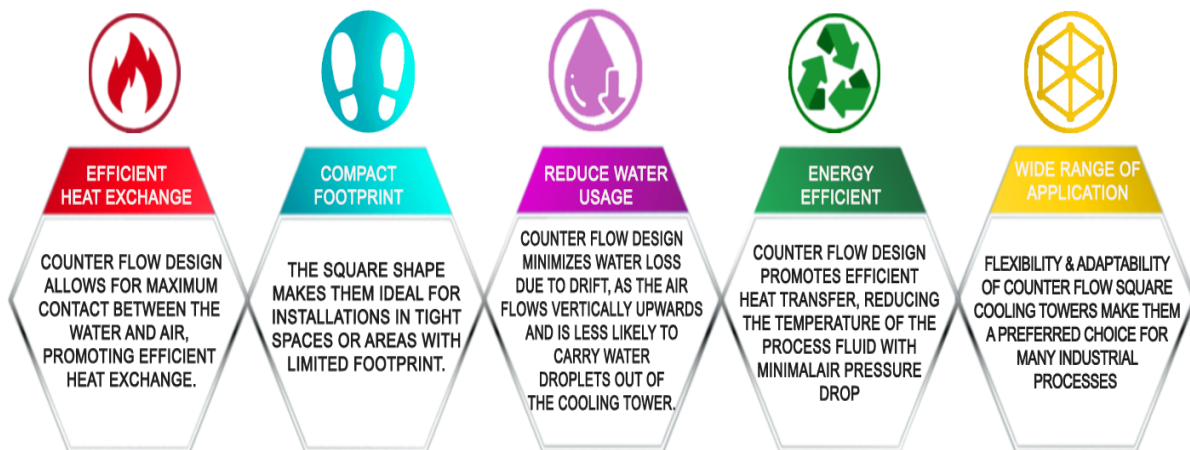
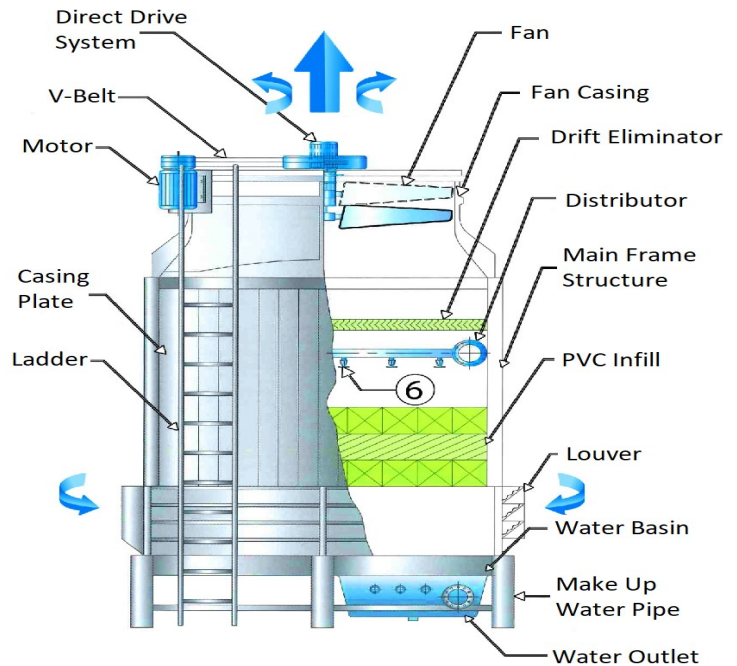
Counter flow square cooling towers are designed with an open-circuit configuration, where the air flows vertically upwards while the water flows downward. This counter flow design allows for efficient heat transfer and offers several advantages compared to other types of cooling towers.

Key Features

1. High performance can be achieved because of maximum contact between the water and air.
2. Visual inspection / Checking of the foreign matter is easy and accessible.
3. Inspection door installed for quick access inside the structure.
4. Space efficient and allows easy installation in tight spaces

Advantages

Structural Model



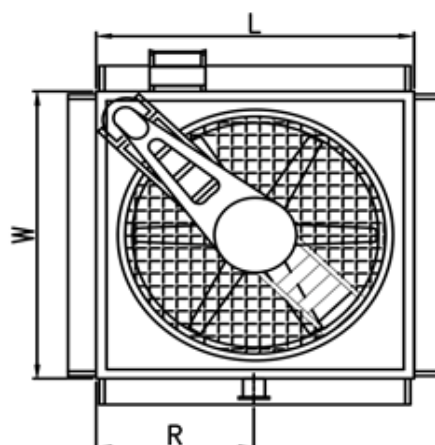
Square counter-flow low & super low noise series - Technical Specifications (I)

Model			BST-100	BST-125	BST-150	BST-175	BST-200	BST-225	BST-250	BST-275	BST-300	BST-350		
Capacity	Cooling Capacity	HRT	100	125	150	175	200	225	250	275	300	350		
	Water Flowrate	L/min	1300	1625	1950	2275	2600	2925	3250	3575	3900	4550		
Dimension	Width (W)	mm	2150	2150	2750	2750	2750	3150	3150	3350	3350	3550		
	Length (L)	mm	2150	2150	2750	2750	2750	3150	3150	3350	3350	3550		
	Height (H)	mm	3790	3790	4100	4100	4100	4910	4910	5210	5210	5210		
	Louver Hight, LV	mm	600	600	800	800	800	800	800	1200	1200	1200		
	Steel Structure		Hot Dip Galvanized Steel											
Material	Casing		FRP											
	Filling		PVC											
	Drift Eliminator		PVC											
	Distribution Pipe / Nozzle		PVC / Polypropelene											
	Cold Water Basin		FRP											
	Fan Stack		FRP											
	Fan		Fan Blade : Aluminum Extruded ; Hub : Aluminum Cast Alloy											
	Type		Axial Flow											
Fan Assembly	Fan	Diameter	mm	1700	1700	2000	2000	2000	2200	2200	2800	2800	3050	
		Number of blade		4 - 6										
		Fan Speed	RPM	480	480	480	480	480	420	420	380	380	360	
		Drive System		V-belt drive (Optional Gear Reducer)										
	Motor	Type		Total Enclosed Fan - Cooled Outdoor 3 Phase Induction Motor 4 - Pole										
		Power Source		3 Phase 415V 50 Hz										
		Rated Output	kw	3.7	5.5	3.7	5.5	7.5	5.5	7.5	5.5	7.5	11	
		Distribution System			PVC Distribution Pipe C/W Polypropylene Spray Nozzle									
Piping Details	Return Pipe Hight, P	mm	2560	2572	2772	2785	2785	3120	3120	3520	3520	3520		
	Hot Water Inlet	mm	100 x 1	125 x 1	125 x 1	150 x 1	150 x 1	200 x 1	200 x1	200 x1	200 x1	200 x1		
	Cold Water Outlet	mm	100 x 1	125 x 1	125 x 1	150 x 1	150 x 1	200 x 1	200 x1	200 x1	200 x1	200 x1		
	Drain Pipe	mm	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1		
	Over Flow	mm	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1	50 x 1		
	Auto Make-up	mm	25 x 1	25 x 1	25 x 1	25 x 1	25 x 1	32 x 1	32 x 1	40 x 1	40 x 1	40 x 1		
	Manual Make-up	mm	25 x 1	25 x 1	25 x 1	25 x 1	25 x 1	32 x 1	32 x 1	40 x 1	40 x 1	40 x 1		
Make up	Evaporation Loss	%	0.84											
	Drift Loss	%	0.005											
Weigth	Dry	kg	1060	1090	1560	1590	1680	2080	2150	2550	2750	2950		
	Operation	kg	2900	2950	3850	3990	4350	4880	4950	5680	5880	6100		

Note:

- Normal Cooling Tower capacity is based on 13L/min / RT
(1 RT = 3,900 Kcal/hr)
 Water inlet 37 °C
 Water outlet 32 °C
 Wet Bulb 27 °C
- Manufacturer reserve the right to make change in the specification and dimensions without notice.

Top View - BST Single Cell Tower



BST Series

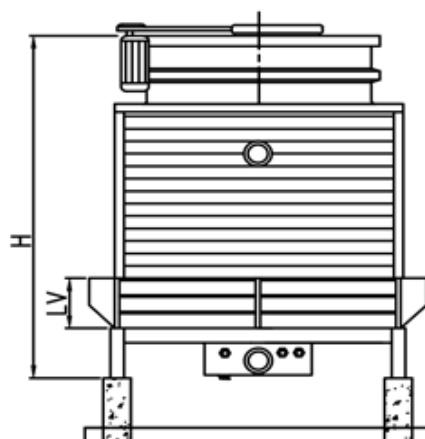
Square counter-flow low & super low noise series - Technical Specifications (II)

Model			BST-400	BST-450	BST-500	BST-600	BST-700	BST-800	BST-900	BST-1000	BST-1250	BST-1500	
Capacity	Cooling Capacity	HRT	400	450	500	600	700	800	900	1000	1250	1500	
	Water Flowrate	L/min	5200	5850	6500	7800	9100	10400	11700	13000	16250	19500	
Dimension	Width (W)	mm	3950	3950	4350	5100	5400	5700	6600	7100	7600	7600	
	Length (L)	mm	3950	3950	4350	5100	5400	5700	6600	7100	7600	7600	
	Height (H)	mm	5520	5520	5820	5820	6130	6130	6130	6430	6740	6740	
	Louver Hight, LV	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	
Material	Steel Structure		Hot Dip Galvanized Steel										
	Casing		FRP										
	Filling		PVC										
	Drift Eliminator		PVC										
	Distribution Pipe / Nozzle		PVC / Polypropelene										
	Cold Water Basin		FRP										
	Fan Stack		FRP										
	Fan		Fan Blade : Aluminum Extruded ; Hub : Aluminum Cast Alloy										
	Type		Axial Flow										
Fan Assembly	Fan	Diameter	mm	3050	3050	3050	3650	3650	3650	4250	4250	4250	4250
		Number of blade		4 - 6									
		Fan Speed	RPM	360	360	360	320	320	320	260	230	230	230
		Drive System		V-belt drive (Optional Gear Reducer)									
	Motor	Type		Total Enclosed Fan - Cooled Outdoor 3 Phase Induction Motor 4 - Pole									
		Power Source		3 Phase 415V 50 Hz									
		Rated Output	kw	11	15			18.5	22		30	37	55
Distribution System			PVC Distribution Pipe C/W Polypropylene Spray Nozzle										
Piping Details	Return Pipe Hight, P	mm	3830	3830	3855	3855	3855	3880	3880	3880	3905	3905	
	Hot Water Inlet	mm	200 x1	200 x1	250 x1	250 x1	250 x1	300 x1	300 x1	300 x1	350 x1	350 x1	
	Cold Water Outlet	mm	200 x1	200 x1	250 x1	250 x1	250 x1	300 x1	300 x1	300 x1	350 x1	350 x1	
	Drain Pipe	mm	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	
	Over Flow	mm	50 x1	50 x1	50 x1	50 x1	50 x1	80 x1	80 x1	80 x1	80 x1	80 x1	
	Auto Make-up	mm	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	
	Manual Make-up	mm	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	50 x1	
Make up	Evaporation Loss	%	0.84										
	Drift Loss	%	0.005										
Weigth	Dry	kg	2950	3120	3890	5800	6950	9500	11800	13610	15200	15400	
	Operation	kg	6680	7130	8700	13800	16530	21050	26900	31200	37800	39600	

Note:

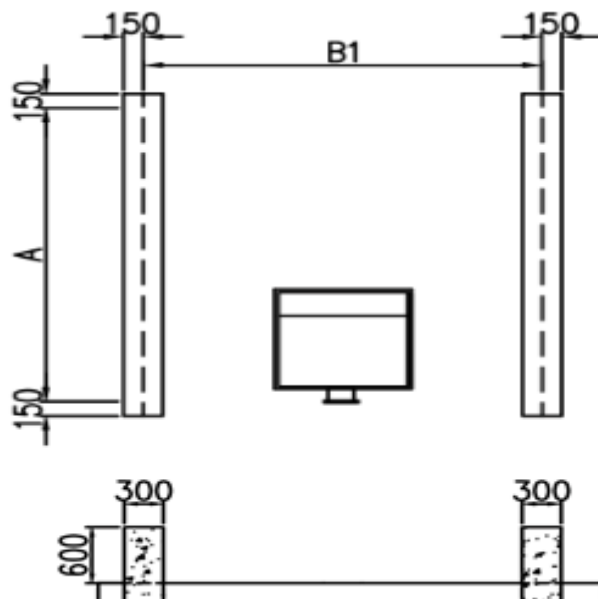
- Normal Cooling Tower capacity is based on 13L/min / RT
(1 RT = 3,900 Kcal/hr)
 Water inlet 37 °C
 Water outlet 32 °C
 Wet Bulb 27 °C
- Manufacturer reserve the right to make change in the specification and dimensions without notice.

Side View - BST Single Cell Tower



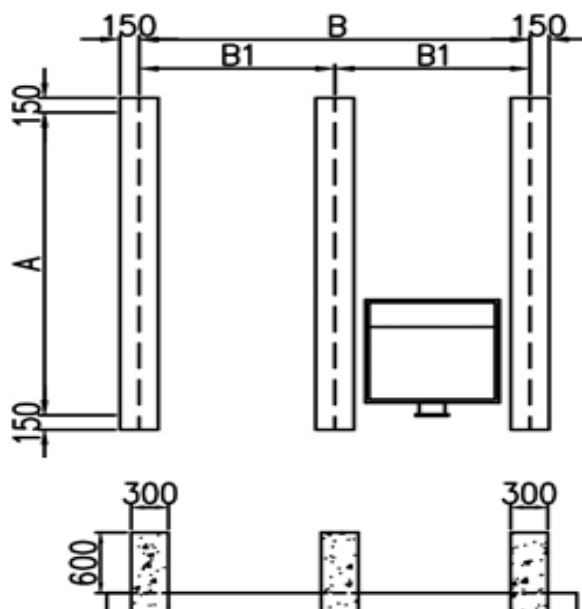
Square counter-flow low & super low noise series - Drawing (Single Cell)

	Tower Dimension			Plinth Dimension		
Model	W	L	H	A	B	B1
BST-100	2150	2150	3790	2200	2150	2150
BST-125	2150	2150	3790	2200	2150	2150



BST- 100t - 125t

	Tower Dimension			Plinth Dimension		
Model	W	L	H	A	B	B1
BST-150	2750	2750	4100	2800	2750	1375
BST-175	2750	2750	4100	2800	2750	1375
BST-200	2750	2750	4100	2800	2750	1375
BST-225	3150	3150	4910	3200	3150	1575
BST-250	3150	3150	4910	3200	3150	1575
BST-275	3350	3350	5210	3400	3350	1675
BST-300	3350	3350	5210	3400	3350	1675
BST-350	3550	3550	5210	3600	3550	1775
BST-400	3950	3950	5520	4000	3950	1975
BST-450	3950	3950	5520	4000	3950	1975
BST-500	4350	4350	5820	4400	4350	2175

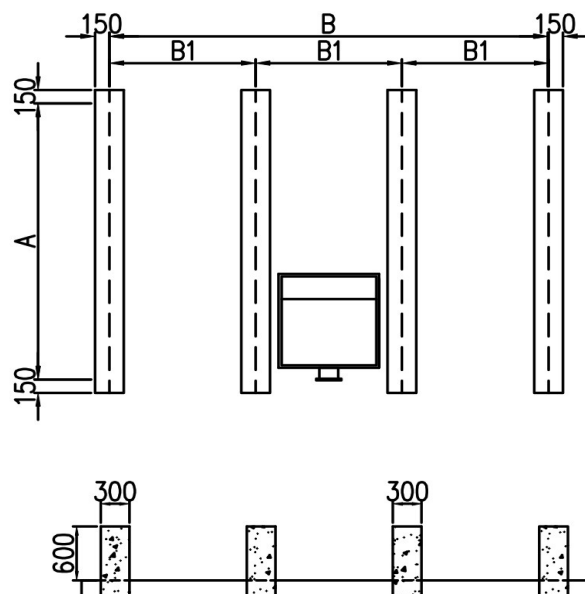


BST- 150t - 500t

BST Series

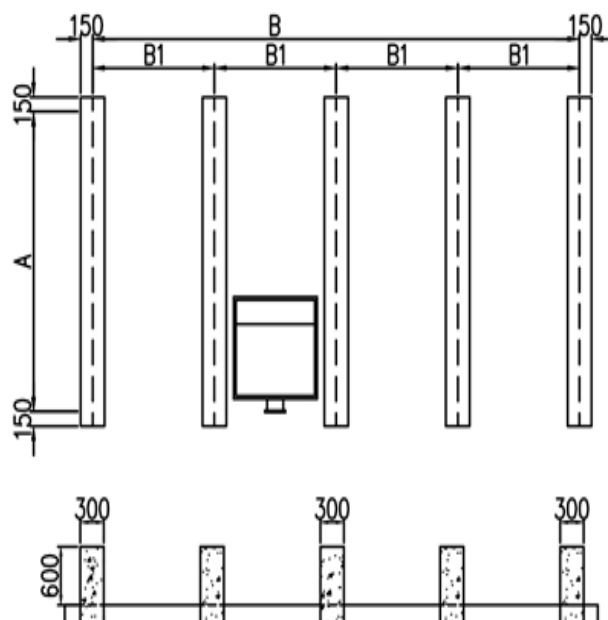
Square counter-flow low & super low noise series - Drawing (Single Cell)

Model	Tower Dimension			Plinth Dimension		
	W	L	H	A	B	B1
BST-600	5100	5100	5820	5150	5100	1700
BST-700	5400	5400	6130	5450	5400	1800
BST-800	5700	5700	6130	5750	5700	1900
BST-900	6600	6600	6130	6650	6600	2200



BST- 600t - 900t

Model	Tower Dimension			Plinth Dimension		
	W	L	H	A	B	B1
BST-1000	7100	7100	6430	7150	7100	1775
BST-1250	7600	7600	6740	7650	7600	1900
BST-1500	7600	7600	6740	7650	7600	1900

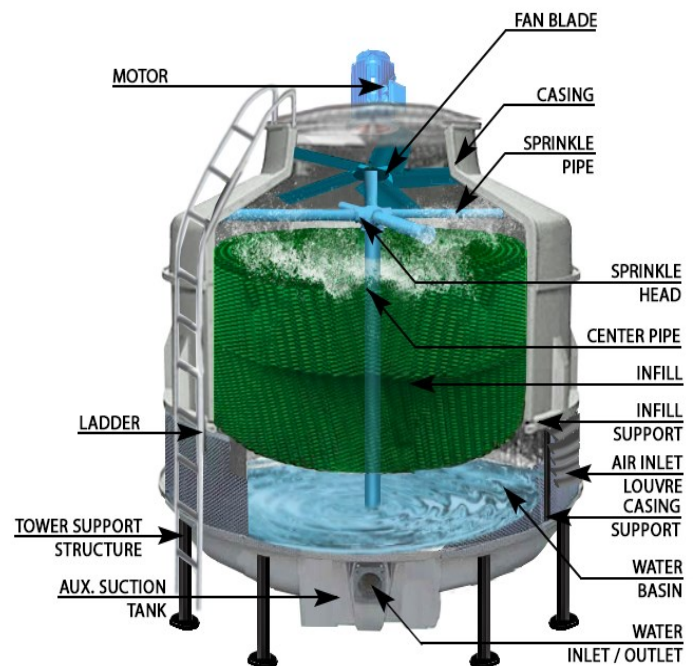


BST- 1000t - 1500t

Features - Round counter-flow standard low noise series

Counter flow round cooling towers is a type of heat exchange equipment used in industrial processes to cool water by dissipating excess heat into the atmosphere. It typically consists of a large, circular structure with vertically oriented heat exchange elements, such as fill media, and a fan or fans located at the top. Water to be cooled is pumped to the top of the tower and distributed evenly over the fill media. As the water flows downward, it is exposed to air blown in by the fan, which causes evaporation and draws heat from the water, lowering its temperature. Simultaneously, the fan creates a counterflow of air against the descending water, enhancing the cooling process. The cooled water collects at the bottom of the tower and is then recirculated back into the system for reuse. Round counterflow cooling towers are known for their efficiency, as the counterflow design maximizes the contact between the water and air, resulting in effective heat transfer and energy savings.

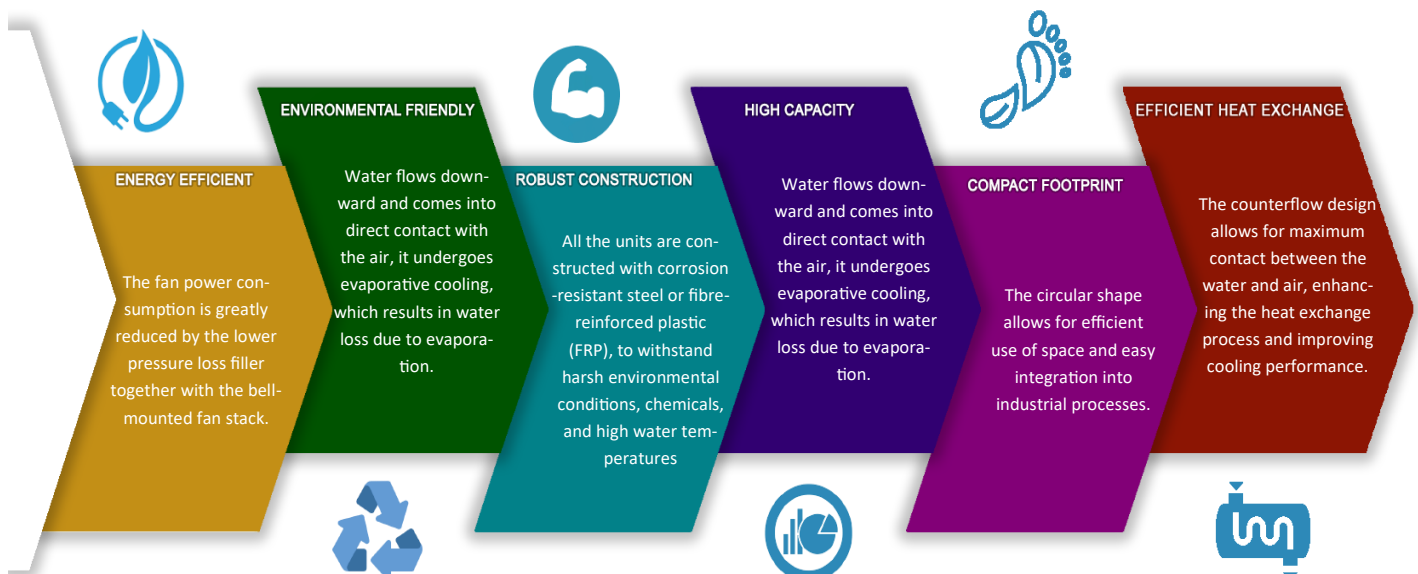
Structural Model



Key Features

1. Removal / Cleaning / maintenance is easy and accessible.
2. Visual inspection / Checking is easy and accessible.
3. Lower initial and long-term cost due to pump requirements.

Advantages



BND Series

Round counter-flow low noise series - Technical Specifications

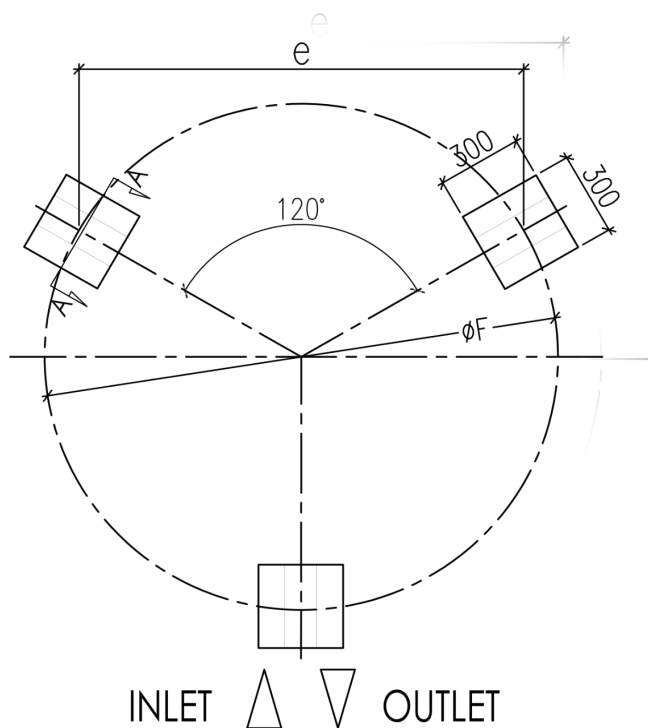
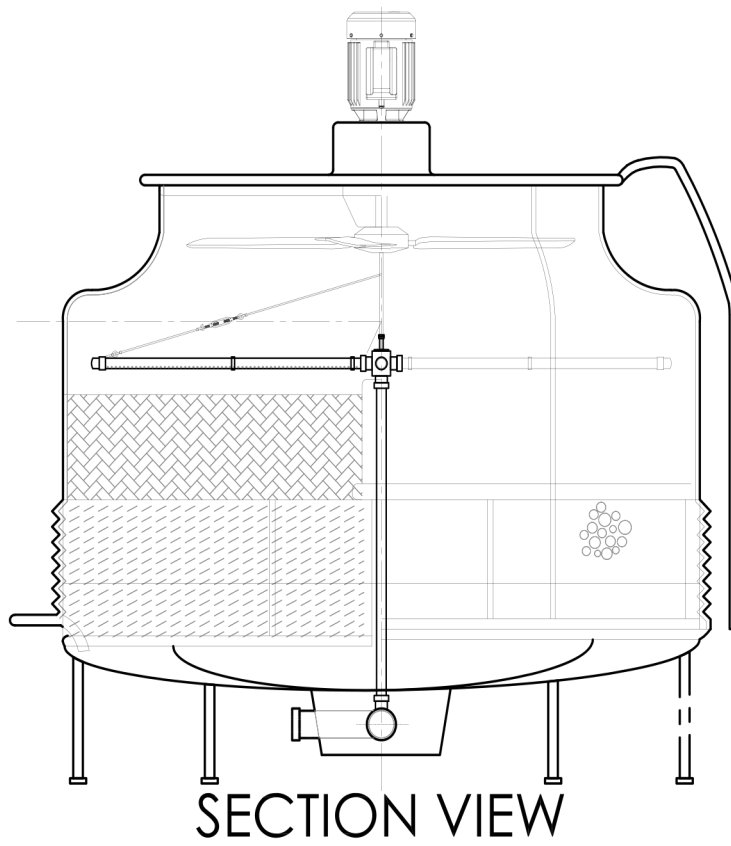
No.	Model	MoTor	Dimensions (mm)		Fan Diameter mm Ø	Fan Air Flow cmm	Tower Weight		Water Pressure Kpa	Piping Diameter					Foundation			dB
	BND-t	415/50 H H.P.	Casing Dmm Ø	High Hmm Ø			Dry Kg	Wet Kkg		Inlet Pipe	Outlet Pipe	Make Up	Over Flow	Drain	Dimension emm	Diameter mm Ø	NOS n	
1	BND-5t	0.25	720	1730	550	41	50	0.2	20	40	40	15	25	25	433	500	3	55
2	BND-10t	0.5	1020	1700	570	67	70	0.4	20	40	40	15	25	25	563	650	3	55
3	BND-15t	0.75	1020	1800	580	83	80	0.4	20	40	40	15	25	25	563	650	3	55
4	BND-20t	0.75	1300	1860	700	125	110	0,6	25	50	50	20	25	25	797	920	3	56
5	BND-30t	1.5	1300	1980	760	167	120	0.6	25	50	50	20	25	25	797	920	3	56
6	BND-40t	1.5	1500	2040	930	250	160	1.2	25	50	50	20	25	25	799	1130	5	57
7	BND-50t	1.5	1760	2320	870	330	185	1.2	25	80	80	20	25	25	990	1400	5	57
8	BND-60t	1.5	1760	2300	880	370	190	1.2	25	80	80	20	25	25	990	1400	5	57
9	BND-75t	2	2020	2400	1200	410	360	1.7	30	80	80	20	40	40	1216	1720	5	58
10	BND-100t	3	2620	2650	1490	625	560	2.1	30	100	100	25	40	40	1030	2060	7	60
11	BND-125t	3	2620	2700	1500	670	570	2.2	30	100	100	25	40	40	1030	2060	7	60
12	BND-150t	4	3040	3200	1800	830	870	3.1	40	125	125	25	50	50	1350	2700	7	61
13	BND-175t	5.5	3500	3300	1900	1040	1170	3.7	40	125	125	40	50	50	1125	2940	9	61
14	BND-200t	5.5	3500	3400	1990	1250	1590	4	40	150	150	40	50	50	1125	2940	9	62
15	BND-225t	5.5	3500	3400	2000	1330	1600	4.1	40	150	150	40	50	50	1125	2940	9	62
16	BND-250t	7.5	3500	3500	2100	1460	1700	4.5	40	150	150	40	50	50	1125	2940	9	62
17	BND-275t	7.5	4000	3800	2380	1670	2000	5.4	50	200	200	40	50	50	1335	3490	9	63
18	BND-300t	7.5	4000	3800	2400	1830	2100	5.5	50	200	200	40	50	50	1335	3490	9	63
19	BND-350	7.5	4000	3900	2800	2080	2500	5.8	50	200	200	40	50	50	1335	3490	9	63
20	BND-400t	10	4900	3890	3390	2500	2900	7.6	50	250	250	50	80	80	1206	4660	13	64
21	BND-450t	10	4900	3900	3400	2670	3000	7.8	50	250	250	50	80	80	1260	4660	13	64
22	BND-500t	15	4900	4200	3600	2900	3100	8.3	50	250	250	50	80	80	1206	4660	13	64
23	BND-600t	20	5540	4400	4200	3300	4000	11.5	55	250	250	50	80	80	1385	5350	13	65
24	BND-700t	25	5540	4600	4200	3750	4500	11.9	55	250	250	50	80	80	1385	5350	13	65
25	BND-800t	25	6340	4890	5000	4100	5200	13	55	300	300	50	80	80	1200	6150	17	66
26	BND-900t	30	6340	4900	5000	5000	6200	14.1	55	300	300	50	80	80	1200	6150	17	66
27	BND-1000t	40	7200	5300	5000	5800	7500	19,5	70	300	300	50	80	80	1385	7100	17	67
28	BND-1200t	40	7200	5800	5000	6600	8500	20.5	70	300	300	50	80	80	1385	7100	17	67
29	BND-1500t	50	9000	8800	6000	8300	9800	28.5	90	400	400	50	80	80	1717	8800	17	68
30	BND-1800t	60	9600	9000	6000	10000	11500	32.5	100	500	500	80	100	100	1853	9500	17	69
31	BND-2200t	75	11600	9500	6000	12500	13500	36.5	110	500	500	80	100	100	2200	1130	17	70

Round counter-flow low noise series - Design Selection

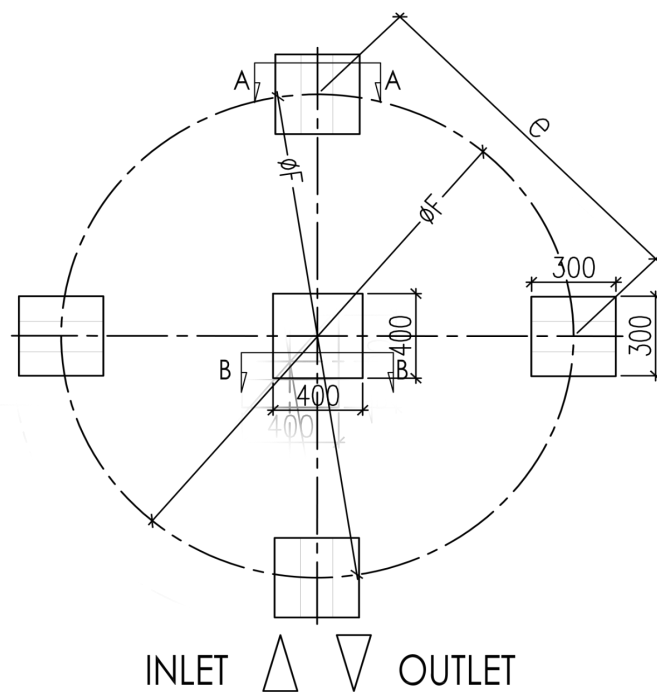
Wet Bulb 27° C					Water Flow Rate (L/min)					Wet Bulb 28° C					Water Flow Rate (L/min)			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	Model
37	38	40	42	45	35	40	35	43	45	37	38	43	45	35	35	60	90	INLET TEMP.
32	32	32	32	32	30	30	29.5	33	35	32	32	33	35	29.5	30	35	40	OUTLET TEMP
65	58	45	40	31	42	28	34	45	59	57	49	42	58	26	33	28	23	BND-5t
130	116	91	79	62	85	57	68	90	119	113	97	85	115	51	66	56	45	BND-10t
195	175	136	119	93	127	85	102	136	178	170	146	127	173	76	98	85	68	BND-15t
260	232	181	158	124	170	112	136	181	236	226	194	168	230	102	132	113	90	BND-20t
390	348	272	237	186	252	168	204	271	354	339	291	252	345	153	198	170	136	BND-30t
520	464	362	316	248	336	224	272	362	472	452	388	336	460	204	264	226	180	BND-40T
650	580	452	395	310	420	280	340	452	590	565	485	420	575	255	330	282	226	BND-50t
780	696	542	474	372	504	336	408	542	708	678	582	504	690	306	396	339	271	BND-60t
975	875	680	595	465	635	425	510	680	890	850	730	635	865	382	493	425	340	BND-75t
1300	1165	905	790	620	848	565	678	905	1185	1130	970	848	1150	510	655	565	452	BND-100t
1625	1450	1130	980	775	1060	705	845	1130	1480	1410	1210	1060	1438	635	818	705	564	BND-125t
1950	1745	1356	1185	930	1270	845	1020	1356	1780	1695	1460	1270	1725	760	980	847	678	BND-150t
2275	2040	1585	1385	1090	1485	990	1188	1585	2080	1980	1700	1485	2020	890	1150	990	792	BND-175t
2600	2330	1810	1580	1240	1695	1130	1355	1810	2370	2260	1940	1695	2305	1020	1310	1130	904	BND-200t
2925	2620	2040	1780	1400	1910	1270	1530	2040	2675	2545	2189	1910	2595	1145	1475	1272	1018	BND-225t
3250	2915	2265	1980	1555	2120	1415	1700	2265	2970	2830	2430	2120	2885	1270	1640	1415	1132	BND-250t
3575	3200	2490	2180	1710	2330	1555	1865	2490	3265	3110	2675	2330	3170	1400	1800	1555	1244	BND-275t
3900	3490	2710	2375	1965	2540	1695	2030	2710	3560	3390	2915	2540	3455	1525	1966	1695	1356	BND-300t
4550	4080	3170	2770	2180	2970	1980	2375	3170	4155	3960	3405	2970	4040	1780	2295	1980	1584	BND-350t
5200	4655	3615	3165	2485	3390	2260	2710	3615	4745	4520	3890	3390	4610	2035	2621	2260	1808	BND-400t
5850	5240	4070	3560	2800	3820	2545	3055	4070	5345	5090	4380	3820	5190	2290	2950	2545	2036	BND-450t
6500	5820	4520	3955	3105	4235	2825	3390	4520	5930	5650	4860	4240	5760	2540	3275	2825	2260	BND-500t
7800	6985	5425	4746	3729	5085	3390	4068	5425	7120	6780	5830	5085	6915	3050	3930	3390	2712	BND-600t
9100	8160	6340	5540	4360	5940	3960	4750	6340	8310	7920	6810	5940	8080	3560	4590	3960	3168	BND-700t
10400	9320	7240	6335	4980	6785	4525	5430	7240	9500	9050	7785	6785	9230	4075	5250	4525	3620	BND-800t
11700	10485	8145	7125	5600	7635	5090	6110	8145	10690	10180	8755	7635	10385	4580	5905	5090	4072	BND-900t
13000	11650	9048	7915	6220	8480	5655	6785	9045	11875	11310	9725	8480	11535	5090	6560	5655	4524	BND-1000t
15600	13975	10855	9500	7465	10175	6785	8140	10855	14245	13570	11670	10175	13840	6105	7870	6790	5428	BND-1200t
19500	17460	13560	11865	9320	12710	8475	10170	13560	17800	16950	14575	12710	17290	7625	9830	8475	6780	BND-1500t
23400	20970	16290	14250	11200	15270	10180	12220	16290	21380	20360	17510	15270	20770	9160	11810	10180	8144	BND-1800t
28600	25630	19910	17380	13640	18645	12430	14905	19910	26070	24860	21340	18645	25355	11220	14410	12430	9944	BND-2200t

BND Series

Round counter-flow standard low noise tower series outline drawing



BND - 5-30T

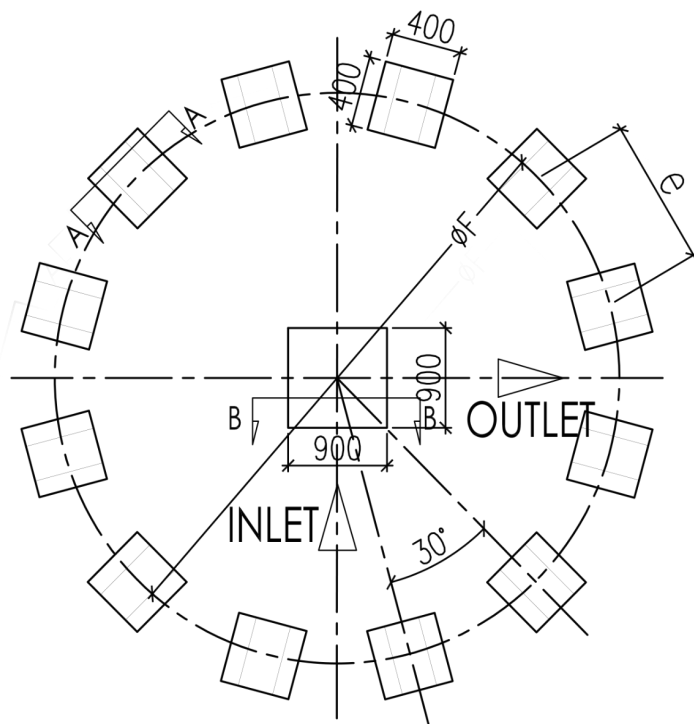


BND - 40-75T

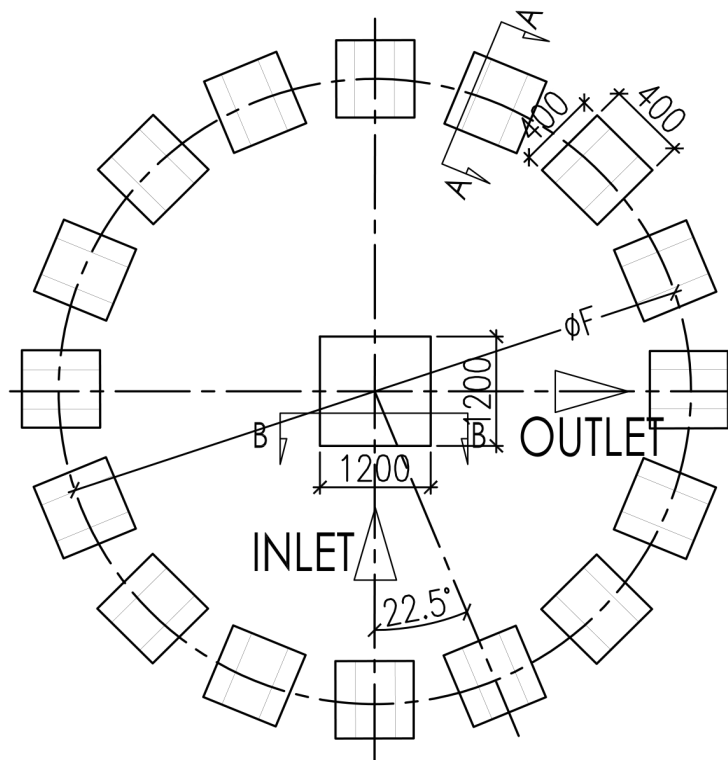


BND Series

Round counter-flow standard low noise tower series outline drawing



BND - 400-700T



BND - 800-2200T

Square counter-flow closed circuit cooling tower

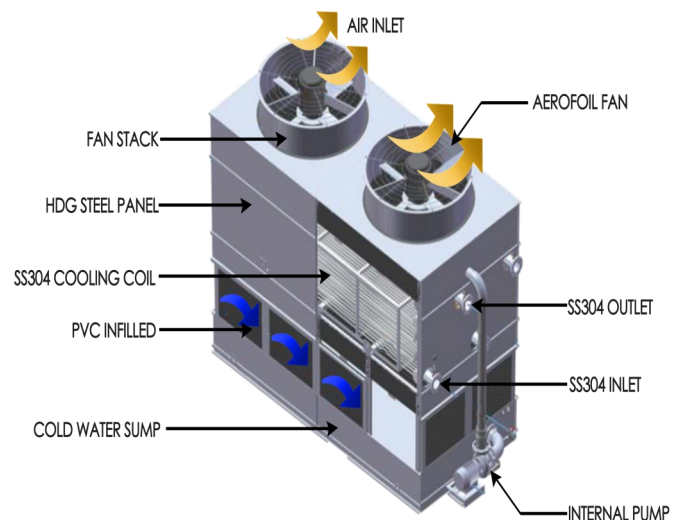
A closed circuit square counter flow tower, also known as a closed-circuit cooling tower, is a type of cooling tower used in various industries to cool process water or other fluids. In this type of tower, the hot process water or fluid is circulated through a heat exchanger within the tower, while the cooling water is sprayed over the exchanger's external surface. The cooling water absorbs the heat from the process fluid, causing it to evaporate and transfer the heat to the atmosphere. The cooled process fluid then returns to the industrial process for reuse.

Unlike an open circuit cooling tower, a closed circuit tower keeps the process fluid separate from the cooling water, preventing contamination and water loss. The counter flow design allows for maximum heat transfer efficiency between the two fluids, resulting in greater energy savings and improved environmental sustainability. Closed circuit square counter flow towers are commonly used in industries such as power generation, chemical manufacturing, and HVAC systems.

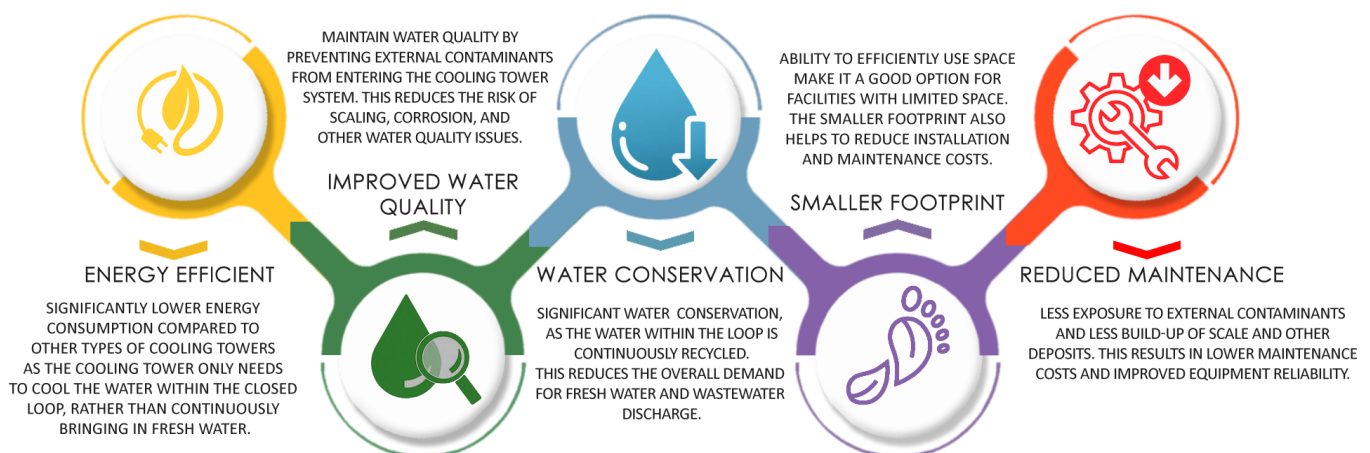
Key Features:

- ◆ Certified by COOLING TOWER INSTITUTE (C139A-23R00).
- ◆ Water flows in the opposite direction to the air. This maximizes heat transfer and efficiency.
- ◆ Efficient use of space and a uniform air flow distribution.
- ◆ Closed circuit system, where the water is circulated within a closed loop. This minimizes water consumption and prevents contamination.
- ◆ High efficiency fill material, maximizes the contact surface area and increases heat transfer and efficiency.

Structural Model



Advantages

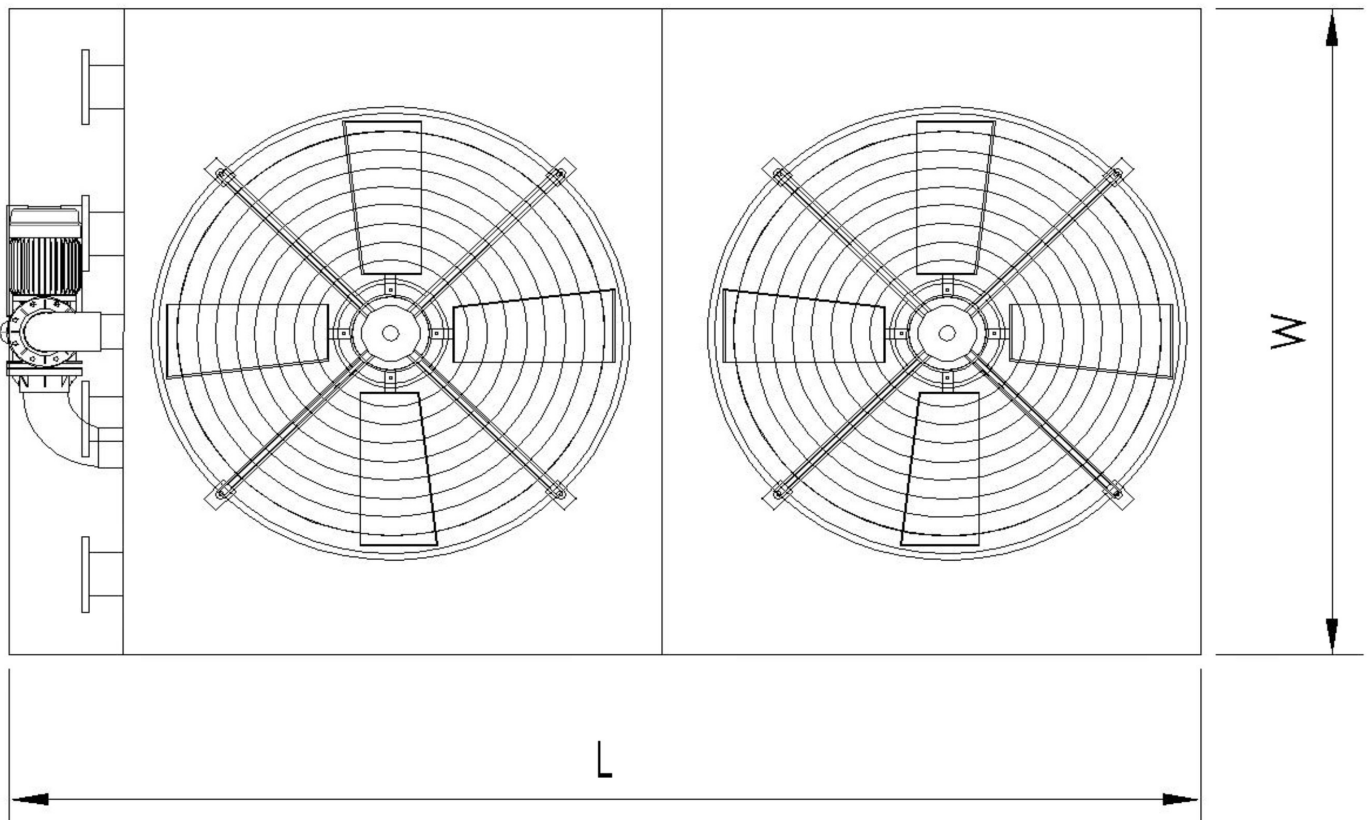


SQBN Series

Square counter-flow close circuit tower series - Technical Specifications (I)

Model		SQBN-10	SQBN-15	SQBN-20	SQBN-25	SQBN-30	SQBN-40	SQBN-50	SQBN-60	SQBN-70	SQBN-80	SQBN-90
Cooling Capacity	Energy (Kcal)	50000	75000	100000	125000	150000	200000	250000	300000	350000	400000	450000
	Power (KW)	58	87	116	145	174	233	291	348	407	465	523
Work Traffic	Flow Rate (T/h)	10	15	20	25	30	40	50	60	70	80	90
Fans	Power (KW)	1.1x1	2.2x1	1.1x2	1.1x2	1.1x2	2.2x2	2.2x2	2.2x2	3x2	3x2	3x2
	Air volume (m³/h)	15000	30000	30000	30000	30000	60000	60000	60000	80000	80000	80000
Sprinkler Pumps	Power (KW)	0.75	0.75	0.75	1.1	1.1	1.1	1.1	1.5	1.5	2.2	2.2
	Flow Rate (T/h)	16	16	20	45	45	45	45	65	65	120	120
	Head m	6	6	6	5	5	5	5	5	5		5
Water Tank	T	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1
Weight (Split)	Shipping (Kg)	500	680	750	850	1200	1550	1680	1850	2000	2350	2660
	Run (Kg)	800	1050	1200	1390	2700	3200	3450	3700	4000	4560	5000
Dimensions	Split	length (mm)	1550	2000	2300	2800	2800	2850	2850	3650	3650	3850
		width (mm)	1150	1150	1150	1150	1150	1600	1700	1700	1700	1900
		height (mm)	2180	2500	2500	2650	2790	2850	2900	3000	3200	3350
	Siamese	length (mm)	2350	2900	3200	3900	3900	3900	3900	4750	4750	5000
		width (mm)	1150	1150	1150	1150	1150	1600	1700	1700	1700	1900
		height (mm)	2180	2500	2500	2650	2790	2850	2900	3000	3200	3350
Inlet & Outlet Water Caliber	DN	65	65	65	80	80	80	100	100	125	125	100x2
Hydration Caliber	DN	20	20	20	25	25	25	25	25	25	32	32
Discharge Caliber	DN	25	25	25	32	32	32	32	32	32	40	40

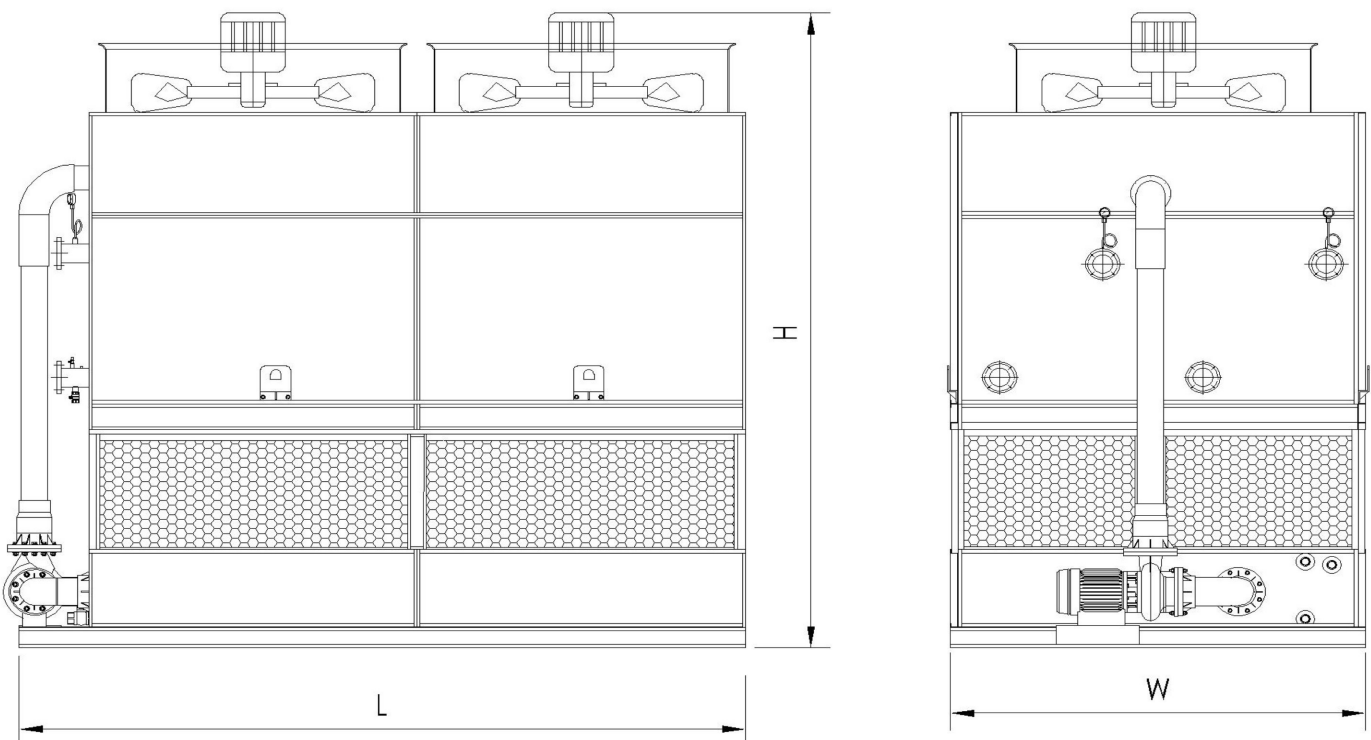
Square counter-flow close circuit tower series outline drawing



Square counter-flow close circuit tower series - Technical Specifications (II)

Model		SQBN-100	SQBN-125	SQBN-150	SQBN-200	SQBN-215	SQBN-230	SQBN-250	SQBN-280	SQBN-300	SQBN-350	SQBN-400
Cooling Capacity	Energy (Kcal)	500000	625000	750000	1000000	1080000	1150000	1250000	1400000	1500000	1750000	2000000
	Power (KW)	581	727	872	1046	1163	1337	1453	1628	1744	2034	2326
Work Traffic	Flow Rate (T/h)	100	125	150	180	200	230	250	280	300	350	400
Fans	Power (KW)	3x2	4x2	5.5x2	5.5x2	7.5x2	7.5x2	7.5x2	11x2	11x2	15x2	15x2
	Air volume (m ³ /h)	80000	100000	170000	170000	200000	200000	200000	300000	300000	350000	350000
Sprinkler Pumps	Power (KW)	2.2	2.2	4	4	7.5	7.5	7.5	7.5	4x2	4x2	4x2
	Flow Rate (T/h)	120	120	180	180	230	230	270	270	360	360	360
	Head m	5	5	5	5	6	6	5	5	5	5	5
Water Tank	T	1	2	2	2	3	/	/	/	/	/	/
Weight (Split)	Shipping (Kg)	2790	3200	3800	4250	5000	5220	5800	6290	6800	7500	8260
	Run (Kg)	5380	6660	8000	9300	11200	12500	13000	13900	14900	15500	16360
Dimensions	Split	length (mm)	3850	4300	4900	5300	5950	5950	6250	6250	6950	7750
		width (mm)	2200	2400	2400	2600	2700	3000	3000	3000	3000	3000
		height (mm)	3450	3600	3700	3830	3870	4300	4500	4500	4650	5000
	Siamese	length (mm)	5000	/	/	/	/	/	/	/	/	/
		width (mm)	2200	/	/	/	/	/	/	/	/	/
		height (mm)	3450	/	/	/	/	/	/	/	/	/
Inlet & Outlet Water Caliber	DN	100x2	125x2	125x2	125x2	150x2	150x2	150x2	150x2	200x2	200x2	200x2
Hydration Caliber	DN	32	32	40	40	40	40	40	50	50	50	50
Discharge Caliber	DN	40	40	50	50	50	50	50	65	65	65	65

Square counter-flow close circuit tower series outline drawing



SQBH Series

Square cross-flow close circuit tower series

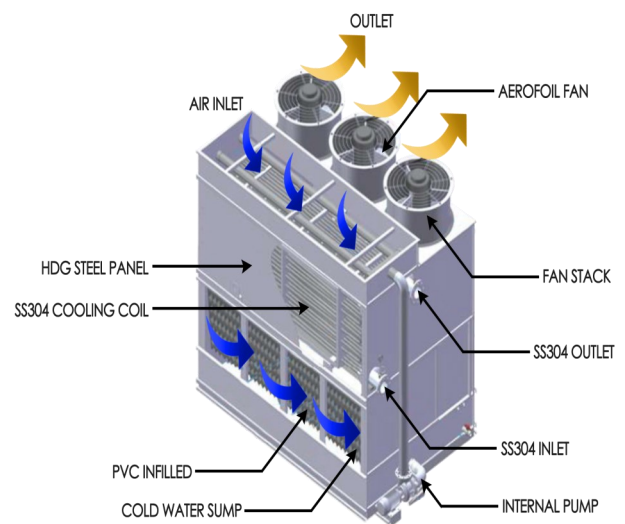
A single side and top side air entry closed circuit cross flow cooling tower is a type of cooling tower that uses a cross-flow design and has air entry on one side and from the top. In this type of cooling tower, the hot water enters from the top of the tower and flows downward through the fill material, while the air enters the tower from one side and flows horizontally across the water flow. The air flow passes through the fill material, which increases the contact area between the water and air, allowing for more efficient heat transfer. As the air flows through the fill material, it evaporates a small amount of water, which causes the remaining water to be cooled.

The cooled water is then collected in a basin at the bottom of the tower and pumped back to the heat source for further cooling. The water in the tower is kept in a closed loop system to prevent contamination and minimize water usage. The single side and top side air entry design of this cooling tower allows for a more uniform distribution of air across the fill material, which results in more efficient heat transfer and better cooling performance. Additionally, the closed circuit system reduces the overall water usage and minimizes the risk of scaling, corrosion, and other water quality issues.

Key Features:

1. Certified by COOLING TOWER INSTITUTE (C139A-23R00).
2. Water flows in the horizontally across the water flow. This maximizes heat transfer and efficiency.
3. Air enters the tower from one side and from the top, which allows for a more uniform distribution of air across the fill material and better cooling performance.
4. Water is circulated within a closed loop. This minimizes water consumption and prevents contamination.
5. High efficiency Infill material, maximizes the contact surface area and increases heat transfer and efficiency.

Structural Model



Advantages

ENERGY EFFICIENT

SIGNIFICANTLY LOWER ENERGY CONSUMPTION COMPARED TO OTHER TYPES OF COOLING TOWERS AS THE COOLING TOWER ONLY NEEDS TO COOL THE WATER WITHIN THE CLOSED LOOP, RATHER THAN CONTINUOUSLY BRINGING IN FRESH WATER.



LOW NOISE LEVELS

FAN AND MOTOR SYSTEM OF THE COOLING TOWER IS TYPICALLY DESIGNED FOR LOW NOISE LEVELS, MAKING IT A GOOD OPTION FOR INSTALLATIONS IN NOISE-SENSITIVE ENVIRONMENTS.



WATER CONSERVATION

SIGNIFICANT WATER CONSERVATION, AS THE WATER WITHIN THE LOOP IS CONTINUOUSLY RECYCLED. THIS REDUCES THE OVERALL DEMAND FOR FRESH WATER AND WASTEWATER DISCHARGE.



SMALLER FOOTPRINT

ABILITY TO EFFICIENTLY USE SPACE MAKE IT A GOOD OPTION FOR FACILITIES WITH LIMITED SPACE. THE SMALLER FOOTPRINT ALSO HELPS TO REDUCE INSTALLATION AND MAINTENANCE COSTS.



IMPROVED WATER QUALITY

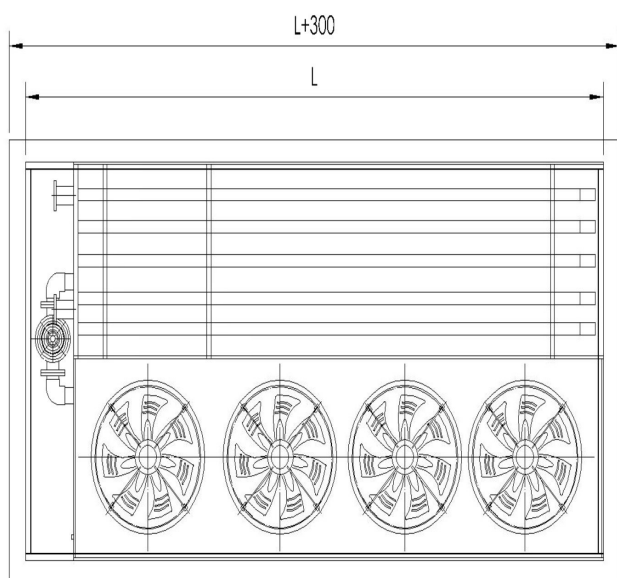
MAINTAIN WATER QUALITY BY PREVENTING EXTERNAL CONTAMINANTS FROM ENTERING THE COOLING TOWER SYSTEM. THIS REDUCES THE RISK OF SCALING, CORROSION, AND OTHER WATER QUALITY ISSUES.



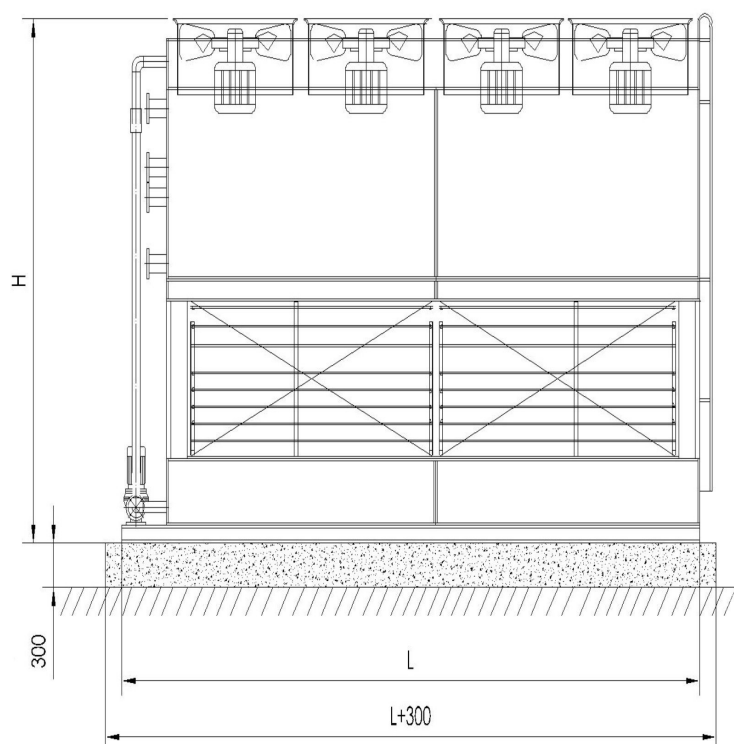
Square cross-flow close circuit tower series - Technical Specifications(I)

Model		SQBH-30	SQBH-40	SQBH-50	SQBH-60	ZSBH-70	ZSBH-80	ZSBH-90	ZSBH-100	ZSBH-125
Cooling Capacity	Energy (Kcal)	150000	200000	250000	300000	350000	400000	450000	500000	625000
	Power (KW)	174	233	291	348	407	465	523	581	727
Work Traffic	Flow Rate (T/h)	30	40	50	60	70	80	90	100	125
Fans	Power (KW)	1.5x2	1.5x2	1.5x2	2.2x2	2.2x2	1.5x3	2.2x3	2.2x3	1.5x4
	Air volume (m³/h)	50000	50000	50000	60000	60000	75000	90000	90000	100000
Sprinkler Pumps	Power (KW)	1.1	1.1	1.1	1.1	1.1	1.5	1.5	1.5	2.2
	Flow Rate (T/h)	45	45	45	45	45	65	65	65	120
	Head m	5	5	5	5	5	5	5	5	5
Water Tank	T	0.5	0.5	0.5	0.5	0.5	1	1	1	2
Weight (Split)	Shipping (Kg)	1000	1250	1400	1550	1790	1900	2200	2400	3000
	Run (Kg)	2400	2700	3000	3350	3750	4200	4800	5200	6450
Dimensions	Split	length (mm)	2800	2800	2800	2800	3650	3850	3850	4300
		width (mm)	1700	1900	1900	2200	2200	2200	2400	2400
		height (mm)	2650	2650	2700	2700	2800	2900	3000	3200
	Siamese	length (mm)	3900	3900	3900	3900	3900	4750	5000	/
		width (mm)	1700	1900	1900	2200	2200	2200	2400	/
		height (mm)	2650	2650	2700	2700	2800	2900	3000	/
Inlet & Outlet Water Caliber	DN	80	80	100	100	125	125	100x2	100x2	125x2
Hydration Caliber	DN	25	25	25	25	25	32	32	32	32
Discharge Caliber	DN	32	32	32	32	32	40	40	40	40

Square cross-flow close circuit tower series outline drawing



SQBH COMPOSITE FLOW
(ONE-SIDE AIR INTAKE) CLOSED COOLING TOWER

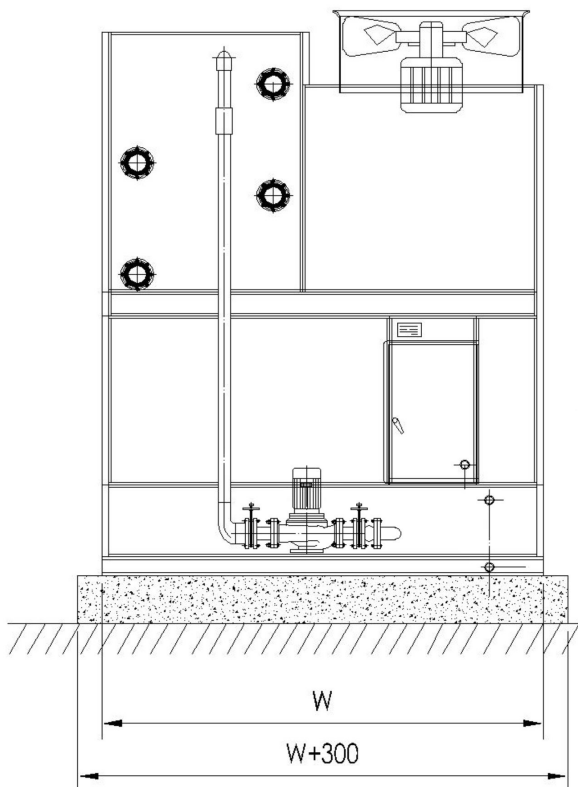


SQBH Series

Square cross-flow close circuit tower series - Technical Specifications (II)

Model		SQBH-150	SQBH-180	SQBH-200	SQBH-230	SQBH-250	SQBH-280	SQBH-300	SQBH-350	SQBH-400
Cooling Capacity	Energy (Kcal)	750000	900000	1000000	1150000	1250000	1400000	1500000	1750000	2000000
	Power (KW)	872	1046	1163	1337	1453	1628	1744	2034	2326
Work Traffic	Flow Rate (T/h)	150	180	200	230	250	280	300	350	400
Fans	Power (KW)	2.2x4	3x4	3x4	3x4	3x4	4x4	4x4	5.5x4	5.5x4
	Air volume (m³/h)	120000	120000	180000	180000	180000	200000	200000	350000	350000
Sprinkler Pumps	Power (KW)	2.2	2.2	3	3	4	4	7.5	7.5	4x2
	Flow Rate (T/h)	120	120	150	150	180	180	270	270	360
	Head m	5	5	5	5	5	5	7	7	5
Water Tank	T	2	2	3	/	/	/	/	/	/
Weight (Split)	Shipping (Kg)	3600	4000	4700	5100	5600	6000	6600	7300	8000
	Run (Kg)	7800	9000	10500	12000	12800	13500	14500	15200	16000
Dimensions	Split	length (mm)	4900	5300	5950	5950	6250	6250	6950	7750
		width (mm)	2400	2700	2700	2700	2800	2800	3000	3000
		height (mm)	3300	3500	3600	3600	3800	3800	4200	4900
	Siamese	length (mm)	/	/	/	/	/	/	/	/
		width (mm)	/	/	/	/	/	/	/	/
		height (mm)	/	/	/	/	/	/	/	/
Inlet & Outlet Water Caliber	DN	125x2	125x2	150x2	150x2	150x2	150x2	200x2	200x2	200x2
Hydration Caliber	DN	40	40	40	40	40	50	50	50	50
Discharge Caliber	DN	50	50	50	50	50	65	65	65	65

Square cross-flow close circuit tower series outline drawing



Square cross-flow close circuit tower series

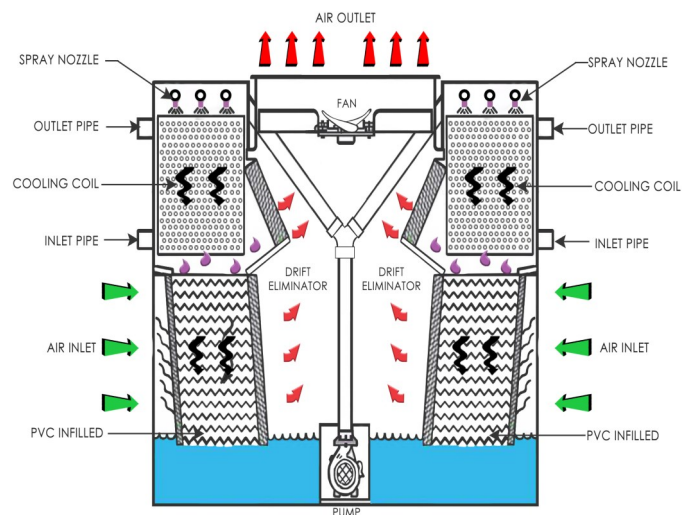
A two-side air entry closed circuit cross flow cooling tower is a type of cooling tower that utilizes a cross-flow design and has air entry on two sides. In this type of cooling tower, the hot water enters from the top of the tower and flows downward through the fill material, while the air enters the tower from the two opposite sides and flows horizontally across the water flow. The air flow passes through the fill material, which increases the contact area between the water and air, allowing for more efficient heat transfer. As the air flows through the fill material, it evaporates a small amount of water, which causes the remaining water to be cooled.

The cooled water is then collected in a basin at the bottom of the tower and pumped back to the heat source for further cooling. The water in the tower is kept in a closed loop system to prevent contamination and minimize water usage. The two-side air entry design of this cooling tower allows for a more uniform distribution of air across the fill material, which results in more efficient heat transfer and better cooling performance. Additionally, the closed circuit system reduces the overall water usage and minimizes the risk of scaling, corrosion, and other water quality issues.

Key Features:

1. Certified by COOLING TECHNOLOGY INSTITUTE (C139A-23R00)
2. Water flows in the horizontally across the water flow. This maximizes heat transfer and efficiency.
3. Typically square in shape, which allows for efficient use of space and a uniform air flow distribution.
4. Water is circulated within a closed loop. This minimizes water consumption and prevents contamination.
5. High efficiency fill material, maximizes the contact surface

Structural Model



Advantages

ENERGY EFFICIENT

SIGNIFICANTLY LOWER ENERGY CONSUMPTION COMPARED TO OTHER TYPES OF COOLING TOWERS AS THE COOLING TOWER ONLY NEEDS TO COOL THE WATER WITHIN THE CLOSED LOOP, RATHER THAN CONTINUOUSLY BRINGING IN FRESH WATER.

WATER CONSERVATION

SIGNIFICANT WATER CONSERVATION, AS THE WATER WITHIN THE LOOP IS CONTINUOUSLY RECYCLED. THIS REDUCES THE OVERALL DEMAND FOR FRESH WATER AND WASTEWATER DISCHARGE.

IMPROVED WATER QUALITY

MAINTAIN WATER QUALITY BY PREVENTING EXTERNAL CONTAMINANTS FROM ENTERING THE COOLING TOWER SYSTEM. THIS REDUCES THE RISK OF SCALING, CORROSION, AND OTHER WATER QUALITY ISSUES.

EASY MAINTENANCE

LOWER MAINTENANCE COSTS AND IMPROVED EQUIPMENT RELIABILITY. ADDITIONALLY, THE EASY ACCESS TO THE FILL MATERIAL AND OTHER COMPONENTS OF THE TOWER MAKES MAINTENANCE AND CLEANING EASIER.

SMALLER FOOTPRINT

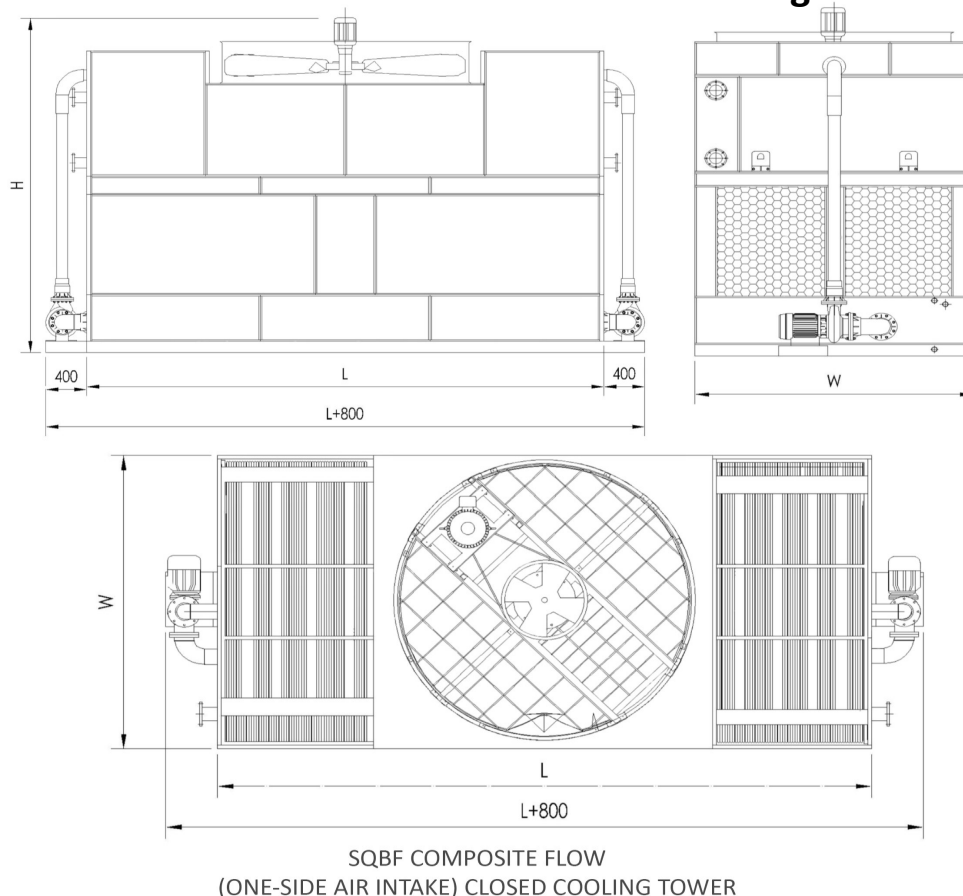
ABILITY TO EFFICIENTLY USE SPACE MAKE IT A GOOD OPTION FOR FACILITIES WITH LIMITED SPACE. THE SMALLER FOOTPRINT ALSO HELPS TO REDUCE INSTALLATION AND MAINTENANCE COSTS.

SQBF Series

Square cross-flow close circuit tower series - Technical Specifications

No.	Model	Heat Removal	flow (m ³ /h)	Work	Spray Pump		Fan		Import & Export	Dimensions			Unit	Running
	SQBF-S	Kcal/h	5°C, wet bulb 28°C	Pressure Mpa	Power KW	Flow m ³ /h	Power KW	Flow m ³ /h	Diameter	length mm	Width mm	height mm	Weight KG	Weight KG
1	SQBF-80S	400000	80	0.3	2.2	100	1.5 * 3	75000	12	3650	2200	2900	1900	4200
2	SQBF-90S	450000	90	0.3	2.2	100	2.2 * 3	90000	100 * 2	3850	2200	3000	2200	4800
3	SQBF-100S	500000	100	0.3	2.2	100	2.2 * 3	90000	100 * 2	3850	2400	3000	2400	5200
4	SQBF-125S	625000	125	0.3	3.7	170	1.5 * 4	100000	125 * 2	4300	2400	3200	3000	6450
5	SQBF-150S	750000	150	0.3	3.7	160	2.2 * 4	120000	125 * 2	4900	2400	3300	3600	7800
6	SQBF-180S	900000	180	0.3	5.5	200	3 * 4	120000	125 * 2	5300	2700	3500	4000	9000
7	SQBF-200S	1000000	200	0.4	5.5	220	3 * 4	180000	150 * 2	5950	2700	3600	4700	10500
8	SQBF-230S	1150000	230	0.4	5.5	235	3 * 4	180000	150 * 2	5950	2700	3600	5100	12000
9	SQBF-250S	1250000	250	0.4	7.5	290	3 * 4	180000	150 * 2	6250	2800	3800	5600	12800
10	SQBF-280S	1400000	280	0.4	7.5	290	4 * 4	200000	150 * 2	6250	2800	3800	6000	13500
11	SQBF-300S	1500000	300	0.4	7.5	290	4 * 4	200000	200 * 2	6950	3000	4200	6600	14500
12	SQBF-350S	1750000	350	0.4	5.5 * 2	350	5.5 * 4	350000	200 * 2	6950	3000	4500	7300	15200
13	SQBF-400S	2000000	400	0.4	7.5 * 2	450	5.5 * 4	350000	200 * 2	7750	3000	4900	8000	16000

Square cross-flow close circuit tower series outline drawing



Handling Instructions

- a. Use lifting equipment to move the cooling tower to the installation site to avoid damage to the tower structure.
- b. Check the structural integrity of the cooling tower before installation and ensure that it is not damaged during transportation.
- c. Use proper personal protective equipment (PPE) such as gloves, safety glasses, and hard hats during installation.
- d. Properly level the cooling tower on its foundation to prevent excessive vibrations or structural damage during operation.
- e. Check all parts of the cooling tower to ensure they are free of debris, corrosion, or other damage before use.
- f. Use appropriate cleaning agents to remove any rust or corrosion from the cooling tower surfaces before use.
- g. Train all personnel who will be operating or maintaining the cooling tower on its proper use and maintenance procedures.

Installation

- a. Select an appropriate location for the cooling tower, away from any heat sources or other obstructions that could interfere with its operation.
- b. Ensure that the foundation is stable and able to support the weight of the cooling tower, as well as any additional weight from water and equipment.
- c. Follow the manufacturer's instructions for assembling and connecting the various components of the cooling tower, including the fan, motor, and water distribution system.
- d. Connect the water supply and drain lines to the cooling tower, ensuring that they are properly sealed and leak-free.
- e. Install all necessary electrical components, including wiring and controls, in accordance with local and national electrical codes.
- f. Perform a thorough inspection of the cooling tower and all its components before operation to ensure that everything is properly installed and connected.
- g. Conduct a trial run of the cooling tower to test its operation and make any necessary adjustments or repairs.

Before Operation

1. Fill the cold water basin up to the top level of the overflow pipe.
2. Run the circulating pump for a while to force air out of the pipes until the pipes and cold water basin are filled up with water. Be careful not to allow air to be sucked into the cooling water pipe.
3. Bring the circulating pump into full operation and adjust the flow control valve so that the water level of the distribution basin is well balanced. The circulating water flow rate is then adjusted with the overall flow control valve located at pump outlet.
4. The ball tap of the automatic make-up water inlet pipe should be adjusted so that water interrupted slightly below the overflow water level.



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