

www.hacstcooling.com
www.hengancooling.com



- HACST Heat Transfer Technology (Shandong) Co., Ltd.
Tel: +86 536 5607108 Fax: +86 536 5607107
Website: www.hacst.com
E-mail: hacst@hacst.com
Add: No.6888, Jiankang East Street, Weifang City, Shandong Province, China
- Weifang Heng An Imp&Exp Co., Ltd.
Tel: +86 536 6103201 Fax: +86 536 6103202
Website: www.hengancooling.com
E-mail: hacst@hacst.com
Add: No.2613, Yuhe Road, Weifang City, Shandong Province, China
- HACST TECH (SUZHOU) Co., Ltd.
Website: www.hacstcooling.com
E-mail: hacst@hacst.com
Add: Room 701A, No. 28 Shishan Road, High-tech Zone, Suzhou City, Jiangsu Province, China



EXPERTS IN COLD AND
HEAT SYSTEMS >>

HACST GROUP CO., LIMITED
HACST TECH (SUZHOU) Co., Ltd.
Weifang Heng An Imp&Exp Co., Ltd.
HACST Heat Transfer Technology (Shandong) Co., Ltd.

About HACST

HACST Heat Transfer Technology (Shandong) Co., Ltd. is a high-tech enterprise integrating the scientific research and development, production and manufacturing, marketing and engineering services of low-carbon environmental protection and energy-saving products. The main products are cooling tower, evaporative condenser, air cooled heat exchanger, adiabatic cooler and other custom design heat exchange equipment. The products are widely used in petroleum, chemical industry, medicine, coal, power, steel, food and other fields.

Our "HACST" and "Hengan" brands have formed a high reputation at home and abroad after decades of development. The products have been exported to more than 100 countries and regions, including the United States, Canada, Russia, Germany, Australia, Saudi Arabia, South Africa, Latin America, Southeast Asia. HACST has become a strategic partner of many worldwide famous enterprises, such as COCA-COLA, MAYEKAWA, EMERSON, SRF, HAMON.

HACST's R&D Center has more than 20 professional R&D personnel, 9 with senior professional titles, and 6 external doctors. With the continuous development and progress of the company over the years, we have in-depth cooperation with domestic and foreign universities and research institutions such as Shandong University and Xi'an Jiaotong University to establish industry-university-research cooperation bases and dynamic mold laboratories; we have more than 10 invention patents and more than 30 practical applications.

New patented technology, participating in a number of major provincial scientific research and innovation projects. The company has passed the CTI certification, Class D pressure

vessel manufacturing license, China's energy-saving and water-saving certification, AS1210 pressure vessel certification, CE, TUV, BV, SGS, ISO9001, ISO14001, ISO45001 and other systems and certified product.

After decades of continuous development, we have accumulated a lot of experience in design, modification, installation, maintenance, replacement etc. Our services have been upgraded from standardization to customization, and we create the best design solutions for customers in different industries and regions. Deeply empower customers for high-quality development.

Vision :

Manufacturing leading products, striving for the world's leading brand!

Value :

Integrity. Innovation .Sustainability

Mission:

Manufacturing Quality Products .
Pursuit of Excellence . Contributing to Society!

Slogan:

Be honest, work steadfastly, work happily and live seriously!



Company certificate

A collage of various international and domestic certificates and patents held by HACST. The certificates include:

- COOLING TECHNOLOGY INSTITUTE (CTI) certification for HACST Heat Transfer Technology (Shandong) Co., Ltd.
- QUALITY MANAGEMENT SYSTEM CERTIFICATE (ISO 9001) issued by JAF.
- ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE (ISO 14001) issued by JAF.
- CERTIFICATE of Registration for HACST Heat Transfer Technology (Shandong) Co., Ltd.
- 高新技术企业 (High-tech Enterprise) certificate.
- 实用新型专利证书 (Utility Model Patent Certificate) for a cooling tower.
- 中华人民共和国特种设备生产许可证 (Special Equipment Production License) for HACST.
- United States of America Hengan trademark registration.
- OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE (ISO 45001) issued by JAF.
- 商标注册证 (Trademark Registration Certificate) for HACST.



Closed Circuit Cooling Tower

- BHX Series Combined Flow
- BNX Series Counter Flow
 - (optional Hybrid Flow)
- BCX Series Cross Flow



Closed Circuit Cooling Towers are routinely selected for numerous commercial and industrial process cooling applications. Some examples include:

- Water-source heat pumps
- Self-contained cooling units
- Chillers
- Hybrid evaporative/Dry cooling
- Cooling special fluids
- Compressor jacket cooling,intercooling,after cooling
- Machine jacket cooling
- Induction furnaces

Closed circuit cooling towers, also known as evaporative fluid coolers, keep the system clean and contaminant-free in a closed loop. This creates two separate fluid circuits: (1) an external circuit, in which spray water circulates over the coil and mixes with the outside air, and (2) an internal circuit, in which the process fluid to be cooled circulates inside the coil. During operation, heat is transferred from the warm fluid in the coil to the spray water, and then to the atmosphere as a portion of the water evaporates.



Closed circuit cooling towers provide energy-efficient operation in a reduced footprint compared to dry coolers, due to evaporation being used as the primary method of cooling. Because blowdown of the basin water is reduced on closed-loop systems, water conservation is also improved when compared to open-loop systems.





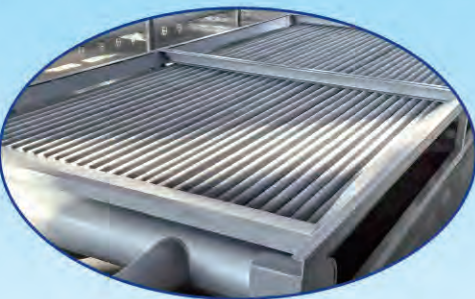
Closed Circuit Cooling Tower Main Parts

Drift eliminator :

PVC/Aluminum Zinc-alloy
U type /W type/Honeycomb type

Tube Coil:

Round Tube/Oval Tube
Hot Dip Galvanized Steel/SS304/SS316L/Copper
Fin Coil:Hot Dip Galvanized/SS304/SS316L



Water pump :

Cast Iron/ SS304/SS316L
WEG/ABB/SIEMENS/CHINA BRAND

AC/EC Fan :

Protection class IP55/56/65/66
Low energy consumption
Multi-wing Blade (optional)
WEG/ABB/SIEMENS/CHINA BRAND

Nozzle :

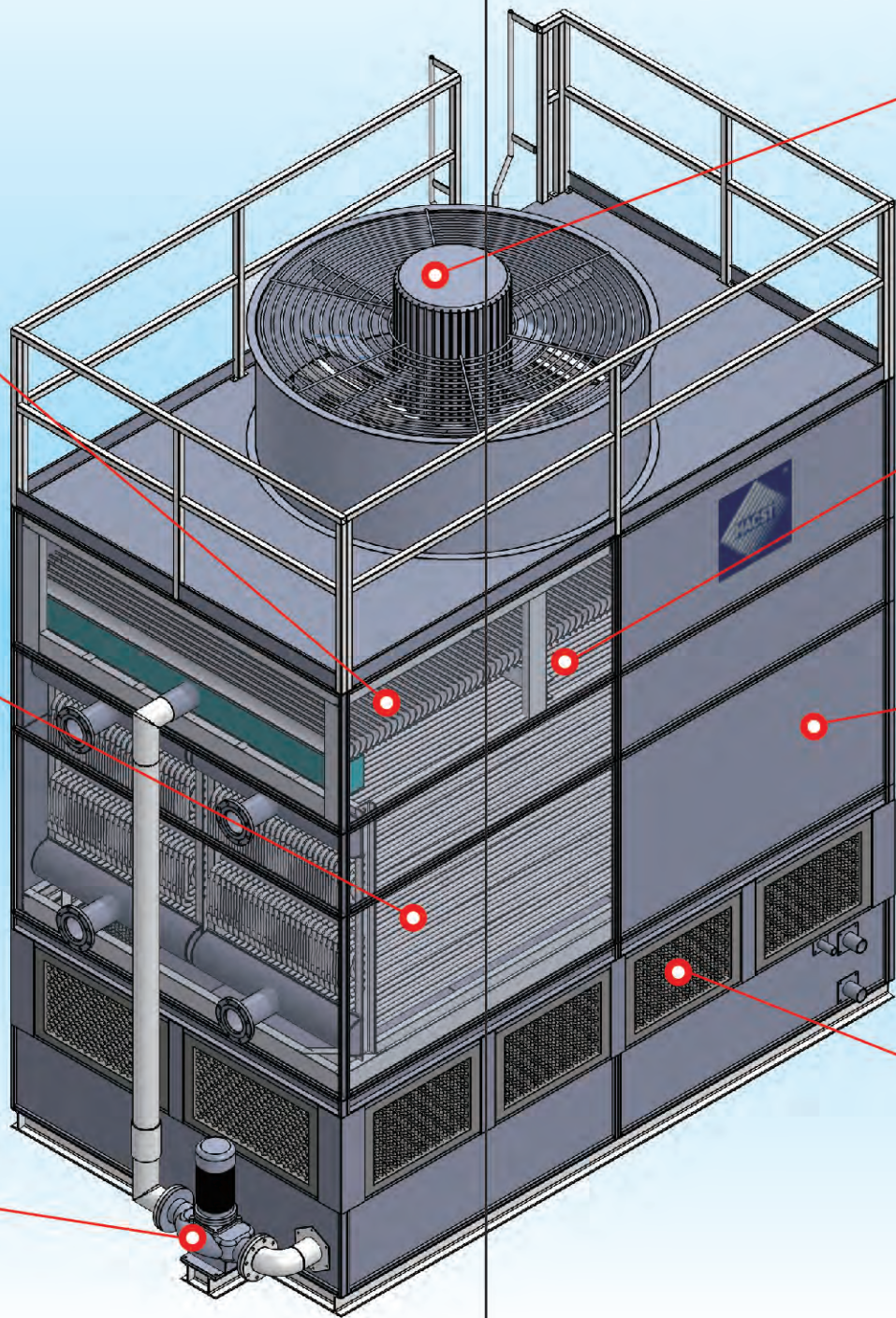
ABS/PP/SS304

Casing :

Imported Galvanized Steel Sheet G235/
with PowderCoating//SuperDyma Steel
SS304/SS316L/FRP
(optional for counter flow)

Air-inlet louver (optional) :

Hot Dip Galvanized Steel/SS304/SS316L/PVC with
UV Protection





Closed Cooling Tower with Centrifugal Fan

一、Closed Circuit Cooling Tower Data Sheet

1.1 Combined Flow Closed Circuit Cooling Tower Data Sheet

Model	Capacity (m³/h)	Fan			Water Pump			Inlet and outlet pipe DN(mm)	Weight (kg)		Dimension(mm)		
		Unit	Power (kw)	Fan capacity (m³/h)	Unit	Power (kw)	Flow rate (m³/h)		Shipping	Operating	Length	Width	Height
BHX-30	30	1	3	46000	1	1.1	53	DN80/DN80	2390	3790	1925	2380	4220
BHX-40	40	1	4	60000	1	1.1	53	DN100/DN100	2510	3910	1925	2380	4220
BHX-50	50	1	5.5	65000	1	1.5	70	DN100/DN100	2760	4340	1925	2580	4220
BHX-60	60	1	5.5	75000	1	1.5	70	DN100/DN100	3290	5140	1925	2980	4220
BHX-70	70	1	7.5	87000	1	1.5	70	DN100/DN100	3680	5530	1925	2980	4450
BHX-80	80	2	4	2*45000	1	2.2	100	DN100/DN100	4230	7650	3770	2200	4220
BHX-90	90	2	4	2*45000	1	2.2	100	DN125/DN125	4510	7930	3770	2200	4720
BHX-100	100	2	4	2*45000	1	2.2	100	DN125/DN125	4620	8040	3770	2200	4965
BHX-110	110	3	4	3*45000	1	3	150	DN125/DN125	6170	10170	4240	2200	4720
BHX-125	125	3	4	3*45000	1	3	150	DN125/DN125	6510	10510	4240	2200	4965
BHX-135	135	4	4	4*45000	1	4	180	DN125/DN125	7100	11950	5610	2200	4220
BHX-150	150	4	4	4*45000	1	4	180	DN125/DN125	7310	12160	5610	2200	4730
BHX-165	165	4	4	4*45000	1	4	180	DN125/DN125	7590	12440	5610	2200	4965
BHX-180	183	4	4	4*45000	1	5.5	230	2-DN125/2-DN125	8920	15580	7450	2200	4220
BHX-200	200	4	4	4*45000	1	5.5	230	2-DN125/2-DN125	9330	15990	7450	2200	4720
BHX-225	226	4	4	4*45000	1	5.5	230	2-DN125/2-DN125	9550	16210	7450	2200	4965
BHX-250	250	5	4	5*45000	2	2*3	2*150	2-DN125/2-DN125	11650	19090	9300	2200	4720
BHX-265	265	5	4	5*45000	2	2*3	2*150	2-DN125/2-DN125	12350	19790	9300	2200	4965
BHX-280	280	6	4	6*45000	2	2*3	2*150	2-DN125/2-DN125	12490	19930	9300	2200	4965
BHX-300	300	6	4	6*45000	2	2*4	2*180	2-DN125/2-DN125	13410	20220	10400	2200	4965

1.2 Counter Flow Closed Circuit Cooling Tower Data Sheet

Model	Capacity (m³/h)	Fan			Water Pump			Inlet and outlet pipe DN(mm)	Weight (kg)		Dimension(mm)		
		Unit	Power (kw)	Fan capacity (m³/h)	Unit	Power (kw)	Flow rate (m³/h)		Shipping	Operating	Length	Width	Height
BNX-07	8	1	0.75	15000	1	0.37	16	DN50/DN50	860	1630	1230	1150	3180
BNX-10	12	1	1.5	18000	1	0.55	23	DN50/DN50	890	1660	1230	1150	3440
BNX-20	21	1	2.2	30000	1	0.75	28	DN50/DN50	1370	2480	1925	1150	3650
BNX-30	33	1	3	45000	1	1.1	53	DN80/DN80	1990	3620	1925	1840	3840
BNX-40	43	1	4	60000	1	1.1	53	DN80/DN80	2120	3790	1925	1840	4220
BNX-50	51	1	5.5	75000	1	1.5	70	DN100/DN100	2420	4490	2470	1840	4220
BNX-60	61	1	7.5	87000	1	1.5	70	DN100/DN100	2690	4760	2470	1840	4450
BNX-70	70	1	7.5	100000	1	2.2	84	DN100/DN100	3650	6080	2790	1840	4450
BNX-80	80	2	4	2*65000	1	2.2	100	DN125/DN125	4150	7480	3770	1840	4020
BNX-90	90	2	4	2*65000	1	2.2	100	DN125/DN125	4680	8010	3770	1840	4220
BNX-100	100	2	4	2*65000	1	2.2	100	DN125/DN125	5120	8450	3770	1840	4450
BNX-110	110	2	5.5	2*75000	1	3	120	2-DN100/2-DN100	5360	9430	3770	2200	4220
BNX-125	125	2	5.5	2*75000	1	3	120	2-DN100/2-DN100	5980	10050	3770	2200	4450
BNX-135	135	2	5.5	2*87000	1	4	180	2-DN100/2-DN100	6230	11270	4846	2200	4350
BNX-150	150	2	7.5	2*100000	1	4	180	2-DN100/2-DN100	6560	11590	4846	2200	4650
BNX-165	165	3	4	3*65000	1	5.5	230	2-DN125/2-DN125	7850	13730	5610	2200	4350
BNX-180	183	3	5.5	3*75000	1	5.5	230	2-DN125/2-DN125	8450	14330	5610	2200	4650
BNX-200	200	3	5.5	3*80000	1	5.5	230	2-DN125/2-DN125	9180	15380	5610	2200	4680
BNX-225	225	3	7.5	3*87000	2	3	2*120	4-DN100/4-DN100	9780	17340	6510	2200	4650
BNX-250	250	4	5.5	4*75000	2	3	2*120	4-DN100/4-DN100	10860	18520	7230	2200	4650
BNX-265	265	4	5.5	4*75000	2	3	2*120	4-DN100/4-DN100	11480	20880	7450	2200	4650
BNX-280	280	4	5.5	4*75000	2	3	2*150	4-DN100/4-DN100	11720	21120	8050	2200	4965
BNX-300	300	4	7.5	4*87000	2	4	2*180	4-DN125/4-DN125	12580	22670	8640	2200	4965

Notes:
1.Do not use for construction. This brochure includes data current at the time of publication which should be reconfirmed at the time of purchase
2.All location dimensions for coil connections are approximate and should not be used for prefabrication of connecting piping
3.Design conditions: wet bulb temperature 28 ℃ ,inlet water temperature 37 ℃ ,outlet water temperature 32 ℃



BCL Series Closed Cooling Tower with Centrifugal Fan Data Sheet

Model	Capacity (m³/h)	Fan			Pump			Inlet and outlet pipe DN(mm)	Weight (kg)		Dimension(mm)			
		Unit	Power (kw)	Fan capacity (m³/h)	Unit	Power (kw)	Flow rate (m³/h)		Shipping	Operating	Length	Upper part width	Total width	Height
BCL-17	17	1	4	26000	1	1.1	50	DN50/DN50	2060	2980	1930	1220	1700	3390
BCL-21	21	1	5.5	32000	1	1.1	50	DN50/DN50	2230	3290	1930	1220	1700	3610
BCL-26	26	1	5.5	32000	1	1.5	70	DN65/DN65	2720	4050	2820	1220	1700	3190
BCL-32	32	1	7.5	35000	1	1.5	70	DN65/DN65	2940	4280	2820	1220	1700	3410
BCL-40	40	1	7.5	35000	1	1.5	70	DN80/DN80	3090	4490	2820	1220	1700	3630
BCL-52	52	1	11	60000	1	2.2	100	DN80/DN80	3810	4960	3290	1840	1840	3430
BCL-65	65	1	11	64000	1	2.2	100	DN100/DN100	4210	4360	3290	1840	1840	3650
BCL-75	75	1	18.5	90000	1	3	150	2-DN80/2-DN80	5890	8260	3870	2200	2200	3960
BCL-95	95	1	22	100000	1	3	150	2-DN80/2-DN80	5890	8260	3870	2200	2200	3960
BCL-115	115	1	22	100000	1	3	150	2-DN100/2-DN100	6430	8810	3870	2200	2200	4170
BCL-120	120	1+1	7.5+15	105000	1	4	180	2-DN100/2-DN100	6750	10300	4860	2200	2200	3650
BCL-135	135	1+1	7.5+15	120000	1	5.5	233	2-DN100/2-DN100	7420	11500	5530	2200	2200	3740
BCL-145	145	1+1	7.5+15	105000	1	4	180	2-DN100/2-DN100	7430	11020	4860	2200	2200	3870
BCL-150	150	1+1	11+22	150000	1	5.5	230	2-DN100/2-DN100	8100	12150	6070	2200	2200	3950
BCL-165	165	1+1	7.5+15	120000	1	5.5	233	2-DN125/2-DN125	8220	12100	5530	2200	2200	3960
BCL-170	170	2	15+15	160000	2	3	150	2-DN125/2-DN125	8760	13600	6820	2200	2200	3740
BCL-185	185	1+1	11+22	150000	1	5.5	230	2-DN125/2-DN125	8920	12800	6070	2200	2200	4180
BCL-210	210	2	15+15	160000	2	3	150	2-DN125/2-DN125	9710	14600	6820	2200	2200	3960
BCL-230	230	2	18.5+18.5	180000	2	3	150	4-DN100/4-DN100	11950	16680	7650	2200	2200	4170
BCL-240	240	2	22+22	200000	2	3	150	4-DN100/4-DN100	11950	16680	7650	2200	2200	4170



Open Circuit Cooling Tower

A cooling tower is an integral element of industrial applications. Its primary task is to remove heat from water, generated during industrial processes. Cool air is used to reduce the temperature of the hot water. It is then sent back to the plant for reuse. The cooling tower acts as a heat exchanger for cooling hot water. The cooling tower system is widely used in a variety of industries, including food processing plants, petroleum refineries, natural gas plants, and petrochemical plants and HVAC.

Advantage:

- Modular Design Suitable For Container Transportation
- Casing:Imported Galvanized Steel Sheet G235 /with Powder Coating//SuperDyma Steel SS304/SS316L/FRP
- Fill:PVC,CPVC,PP

Cross flow type



Counter flow type



Industry type



Concrete type



Drift Eliminator :
PVC/Aluminum Zinc-alloy
U type /W type/ honeycomb type
Nozzles:ABS/PP/SS304
Spraying Pipe:PVC/Hot Dip Galvanized/
SS304 /SS316L
Fan:Protection class IP55/56/65/66
Low energy consumption
FRP /Aluminum Zinc-alloy /Multi-wing Blade
(optional)
WEG/ABB/SIEMENS/CHINA BRAND



1.1 Main parameters of DBNL3-series of low-noise counterflow FRP cooling towers

Specification Model		t=28℃ Water flow (m³/h)		t=27℃ Water flow (m³/h)		Dimension (mm)		Air flow (m³/h)	Fan diameter (mm)	Motor Power (KW)	Connect Pipe DN (mm)				Weight (kg)		Inlet Pressure kpa	NoisedB(A)			Dm
		t=5℃	t=8℃	t=5℃	t=8℃	Height	Diameter				Inlet &outlet	Overflow	Drain	filling	Shipping	Operation		Dm	10m	16m	
	DBNL3-5	5	3	7	4	1440	820	4900	600	0.37	40/40	25	25	15	224	18.7	53	39.2	36.1	1.3	
	DBNL3-8	8	6	10	7	1650	820	5800	600	0.37	40/40	25	25	15	275	19.2	53	39.8	36.9	1.3	
	DBNL3-12	12	9	15	10	2033	1210	7200	700	0.6	50/100	25	25	15	164.8	19.6	54	40.3	36.6	1.5	
	DBNL3-20	20	15	24	17	2123	1460	12400	800	0.8	50/100	25	25	15	184	20	54	41.1	37.5	1.5	
	DBNL3-30	30	22	35	27	2342	1912	18000	1200	0.8	80/125	25	25	15	324.8	22.1	55	43.5	39.9	1.8	
	DBNL3-40	40	30	46	34	2842	1912	21500	1200	1.1	80/125	25	25	20	382.4	26	55	43.5	39.9	1.8	
	DBNL3-50	50	37	57	44	2830	2215	28000	1400	1.5	80/125	32	25	20	476.8	26.5	55	44.7	41.1	2.1	
	DBNL3-60	60	44	68	51	3080	2215	32300	1400	1.5	80/125	32	25	20	513.6	29	56	45.7	42.1	2.1	
	DBNL3-70	70	51	79	60	3094	2629	39200	1600	2.2	125/200	40	40	20	632	27.8	56	47	43	2.5	
	DBNL3-80	80	61	92	70	3344	2629	43400	1600	2.2	125/200	40	40	20	700	30.3	56.5	47.5	43.5	2.5	
	DBNL3-100	100	74	114	86	3294	3134	56000	1800	3	125/200	40	40	20	778.4	28.6	57	50	46	3	
	DBNL3-125	125	92	142	108	3544	3134	67200	1800	4	125/200	40	40	20	850	31.5	58	50.7	47.4	3	
	DBNL3-150	150	112	171	129	3553	3732	84000	2400	4	150/250	80	50	25	1356	29	58.5	52	48.6	3.6	
	DBNL3-175	175	131	200	150	3803	3732	94300	2400	5.5	150/250	80	50	25	1468	31.5	59.5	53	49.6	3.6	
	DBNL3-200	200	153	231	180	3835	4342	112000	2800	5.5	150/250	80	50	32	1705	30.1	60	54.6	51.3	4.2	
	DBNL3-250	250	186	283	215	4085	4342	134300	2800	7.5	150/250	80	50	32	1875	32.6	61	55.6	52.3	4.2	
	DBNL3-300	300	225	334	260	4223	5134	168000	3400	7.5	200/300	80	50	40	2350	35	61	56.8	53.5	5	
	DBNL3-350	350	267	395	304	4473	5134	187400	3400	11	200/300	80	50	40	2702	37.5	61.5	57.3	54	5	
	DBNL3-400	400	301	455	341	4618	6044	224000	3800	11	250/300	100	50	50	3010	36	62	58.8	55.7	5.9	
	DBNL3-450	450	343	514	387	4868	6044	242000	3800	11	250/300	100	50	50	3252	38.5	62	58.8	55.7	5.9	
	DBNL3-500	500	375	576	427	5219	6476	280000	4200	15	300/350	100	80	50	4037	37	62	60	56.9	6.6	
	DBNL3-600	600	454	680	516	5719	6476	302200	4200	18.5	300/350	100	80	50	4599	42	63	61	57.4	6.6	
	DBNL3-700	700	528	790	600	5589	7766	393500	5000	18.5	350/400	100	80	80	4840	39.5	63	61.4	58.4	7.6	
	DBNL3-800	800	590	890	685	6089	7766	408000	5000	22	350/400	100	80	80	5588	44.5	63	61.4	58.4	7.6	
	DBNL3-900	900	685	1035	790	6040	8836	505200	6000	22	350/450	100	80	80	6253	42.5	63.5	62.6	59.7	8.6	
	DBNL3-1000	1000	783	1139	880	6540	8836	510300	6000	30	350/450	100	80	80	7392	47.5	64	63.1	60.2	8.6	

Notes:
Do not use for construction. This brochure includes data current at the time of publication which should be reconfirmed at the time of purchase

1.2 Main parameters of CDBNL3 series low-noise counterflow FRP cooling tower

Specification		t=28℃ Water flow (m³/h)		t=27℃ Water flow (m³/h)		Dimension (mm)		Air flow (m³/h)	Fan diameter (mm)	Motor Power (KW)	Connect Pipe DN (mm)				Weight (kg)		Inlet Pressure kpa	NoisedB(A)					
		t=5℃	t=8℃	t=5℃	t=8℃	Height	Diameter				Inlet &outlet	Overflow	Drain	filling	Shipping	Operation		Dm	10m	16m	Dm		
Model																				Dm			
	CDBNL3-12																			50	37.1	33.5	1.5
	CDBNL3-20																			50	36.3	32.6	1.5
	CDBNL3-30																			51	39.5	35.9	1.8
	CDBNL3-40																			51	39.5	35.9	1.8
	CDBNL3-50																			51	39.5	35.9	1.8
	CDBNL3-60																			52	41.7	38.1	2.1
	CDBNL3-70																			52	43	39	2.5
	CDBNL3-80																			52.5	43.5	39.5	2.5
	CDBNL3-100																			53	46	42	3
	CDBNL3-125																			54	46.7	43.4	3
	CDBNL3-150																			54	47.5	44.1	3.6
	CDBNL3-175																			55	48.5	45.1	3.6
	CDBNL3-200																			55	49.6	46.3	4.2
	CDBNL3-250																			56	50.6	47.3	4.2
	CDBNL3-300																			56	51.8	48.5	5
CDBNL3-350																			56.5	52.3	49	5	
CDBNL3-400																			57	53.8	50.7	5.9	
CDBNL3-450																			57	53.8	50.7	5.9	
CDBNL3-500																			57	55	51.9	6.6	
CDBNL3-600																			58	56	52.4	6.6	

Notes:
Do not use for construction. This brochure includes data current at the time of publication which should be reconfirmed at the time of purchase

1.3 Main parameters of GBNL3 series industrial counterflow FRP cooling tower

Specification Model	T=28℃ Water flow (m³/h)			T=27℃ Water flow (m³/h)			Dimension (mm)		Air flow (m³/h)	Fan diameter (mm)	Motor Power (KW)	Connect Pipe DN (mm)				Weight (kg)		Inlet Pressure kpa	NoisedB(A)			Dm
	Δt=10℃	Δt=20℃	Δt=25℃	Δt=10℃	Δt=20℃	Δt=25℃	Height	Diameter				Inlet & outlet	Overflow	Drain	filling	Shipping	Operation		Dm	10m	16m	
GBNL3-8	8	6	4	11	7	5	2033	1210	7200	700	0.55	40/40	25	25	15	306	584	19	54	40.3	36.6	1.5
GBNL3-12	12	10	8	14	11	9	2123	1460	12400	800	0.75	50/100	25	25	15	330	644	20	54	41.1	37.5	1.5
GBNL3-20	20	17	14	23	19	16	2342	1912	18000	1200	0.75	50/100	25	25	15	548	1100	22.1	55	43.5	39.9	1.8
GBNL3-25	25	21	18	29	23	24	2842	2215	21500	1200	1.1	50/100	25	25	15	618	1258	26	55	44.7	41.1	2.1
GBNL3-30	30	25	21	34	28	25	2830	2215	28000	1400	1.5	80/125	25	25	15	756	1640	26.5	56	45.7	42.1	2.1
GBNL3-40	40	33	28	45	37	33	3080	2215	32300	1600	2.2	80/125	25	25	20	998	2272	27.8	56	45.7	42.1	2.1
GBNL3-50	50	41	35	55	45	41	3094	2629	39200	1600	2.2	80/125	32	25	20	755	2064	29	56	47	43	2.5
GBNL3-60	60	49	42	66	54	49	3344	2629	43400	1600	2.2	80/125	32	25	20	825	2243	30.3	56.5	47.5	43.5	2.5
GBNL3-70	70	64	56	77	68	60	3294	3134	40800	1800	2.2	125/200	40	40	20	943	3034	28.6	57	50	46	3
GBNL3-80	80	73	65	88	78	68	3544	3134	54000	1800	3	125/200	40	40	20	1003	3230	31.5	58	50.7	47.4	3
GBNL3-100	100	91	83	110	96	85	3553	3732	71300	2400	3	150/250	80	50	25	1695	4125	29	58.5	52	48.6	3.6
GBNL3-125	125	114	100	137	120	106	3803	3732	84000	2400	4	150/250	80	50	25	1835	4461	31.5	59.5	53	49.6	3.6
GBNL3-150	150	136	119	166	145	127	3835	4342	106000	2800	4	150/250	80	50	32	2132	5592	30.1	60	54.6	51.3	4.2
GBNL3-175	175	157	139	192	168	148	4065	4342	118000	2800	5.5	150/250	80	50	32	2344	6365	32.6	61	55.6	52.3	4.2
GBNL3-200	200	180	159	220	191	169	4223	5134	141300	3400	5.5	200/300	80	50	40	3408	9080	35	61	56.8	53.5	5
GBNL3-250	250	225	199	275	239	212	4473	5134	167900	3400	7.5	200/300	80	50	40	3697	9743	37.5	61.5	57.3	54	5
GBNL3-300	300	270	240	332	290	253	4618	6044	212000	3800	11	250/300	100	50	50	4180	12560	36	62	58.8	55.7	5.9
GBNL3-350	350	316	276	386	336	296	4868	6044	235300	3800	11	250/300	100	50	50	4526	13344	38.5	62	58.8	55.7	5.9
GBNL3-400	400	360	315	442	383	338	5219	6476	282800	4200	11	300/350	100	80	50	5588	16078	37	62	60	56.9	6.6
GBNL3-450	450	406	358	495	431	381	5719	6476	285000	4200	15	300/350	100	80	50	6390	18180	42	63	61	57.4	6.6
GBNL3-500	500	449	393	550	477	422	5689	7766	353200	5000	15	350/400	100	80	80	6430	22709	39.5	63	61.4	58.4	7.6
GBNL3-600	600	545	480	660	576	507	6089	7766	381400	5000	18.5	350/400	100	80	80	7566	25565	44.5	63	61.4	58.4	7.6
GBNL3-700	700	629	558	775	673	591	6040	8836	495500	6000	22	350/450	100	80	80	8574	32210	42.5	63.5	62.6	59.7	8.6
GBNL3-800	800	728	644	880	772	680	6540	8836	507500	6000	30	350/450	100	80	80	10200	36040	47.5	64	63.1	60.2	8.6

Do not use for construction. This brochure includes data current at the time of publication which should be reconfirmed at the time of purchase

Main parameters of FDKH series open type cross flow square cooling tower

Model	Water flow	Inlet temperature	Outlet temperature	Wet bulb temperature	Length	Width	Fill height	Fill width	Motor power	Fan Diameter
	m3/h	℃	℃	℃	mm	mm	mm	mm	kW	mm
FDKH-50	50	37	32	28	3500	1800	1500	800	1.5	1500
FDKH-100	100	37	32	28	3900	2000	2000	1000	4	1500
FDKH-125	125	37	32	28	3900	2000	2000	1000	5.5	1500
FDKH-150	150	37	32	28	4200	2200	2500	1000	5.5	1800
FDKH-175	175	37	32	28	4400	2400	2500	1000	7.5	2100
FDKH-200	200	37	32	28	4600	2500	2500	1000	7.5	2200
FDKH-250	250	37	32	28	5500	2800	2500	1300	11	2500
FDKH-300	300	37	32	28	5800	3100	3000	1300	11	2800
FDKH-350	350	37	32	28	6000	3300	3500	1300	11	3000
FDKH-400	400	37	32	28	6000	3300	4000	1300	15	3000
FDKH-450	450	37	32	28	6500	3700	3500	1300	15	3400
FDKH-500	500	37	32	28	6500	3700	4000	1300	18.5	3400
FDKH-550	550	37	32	28	6700	3900	4000	1300	18.5	3600
FDKH-600	600	37	32	28	7100	3900	4000	1500	22	3600
FDKH-650	650	37	32	28	7300	4100	4000	1500	22	3800
FDKH-700	700	37	32	28	7700	4500	4000	1500	22	4200
FDKH-750	750	37	32	28	7700	4500	4500	1500	22	4200
FDKH-800	800	37	32	28	7700	4500	4500	1500	30	4200
FDKH-850	850	37	32	28	8000	4800	4500	1500	30	4500
FDKH-900	900	37	32	28	8000	4800	4500	1500	37	4500
FDKH-950	950	37	32	28	8200	5000	4500	1500	37	4700
FDKH-1000	1000	37	32	28	8200	5000	5000	1500	45	4700

Main parameters of DFNL series open type counter flow square cooling tower

Model	Water flow	Inlet temperature	Outlet temperature	Wet bulb temperature	Length	Width	Fill height	Motor power	Fan Diameter
	m3/h	°C	°C	°C	mm	mm	mm	kW	mm
DFNL-50	50	37	32	28	2000	2000	1000	1.5	1500
DFNL-100	100	37	32	28	2800	2800	1000	4	1800
DFNL-150	150	37	32	28	3300	3300	1000	5.5	2200
DFNL-200	200	37	32	28	3600	3600	1500	7.5	2400
DFNL-250	250	37	32	28	4200	4200	1500	7.5	2800
DFNL-300	300	37	32	28	4800	4800	1500	11	3000
DFNL-350	350	37	32	28	5000	5000	1500	11	3200
DFNL-400	400	37	32	28	5000	5000	1500	15	3200
DFNL-450	450	37	32	28	5800	5800	1500	15	3500
DFNL-500	500	37	32	28	5800	5800	1500	18.5	3500
DFNL-550	550	37	32	28	6000	6000	1500	18.5	4000
DFNL-600	600	37	32	28	6200	6200	1500	22	4000
DFNL-650	650	37	32	28	6600	6600	1500	22	4200
DFNL-700	700	37	32	28	7000	7000	1500	22	4500
DFNL-750	750	37	32	28	7200	7200	1500	22	5000
DFNL-800	800	37	32	28	7200	7200	1500	30	5000
DFNL-850	850	37	32	28	7500	7500	1500	30	5000
DFNL-900	900	37	32	28	7500	7500	1500	37	5000
DFNL-950	950	37	32	28	7500	7500	1500	37	5500
DFNL-1000	1000	37	32	28	7500	7500	1500	45	5500

GFNL series steel structure frame square counterflow fiberglass cooling tower

Specification Model	Water flow (m³/h)	Fan Diameter (mm)	Motor power (KW)	Fan Speed (r/min)	Fan Model	Air Flow (m³/h)	Full Pressure (Pa)	Static pressure Pa	Inlet pressure (Kpa)	Length (mm)	Width (mm)	Height (mm)	Inlet &outlet pipe DN (mm)	Shipping weight (T)	Operation weight (T)	Noise dB (A)
GFNL- 800	800	4700	30	240	F47	62X104	132	98	66	8400	8400	8350	250X2	10.43	31.5	75
GFNL-1000	1000	4700	37	240	F47	78X104	148	95	66	9400	9400	8850	300X2	11.5	45.2	75
GFNL-1200	1200	5460	45	165	F55	93X104	148	95	68	10400	10400	10200	350X2	12.37	48.4	75
GFNL-1500	1500	6000	55	165	F60	120X104	157	110	71	11200	11200	10650	350X2	13.46	54.5	75
GFNL-2000	2000	7000	75	149	F70	160X104	160	110	76	13000	13000	12100	400X2	15.3	62.6	78
GFNL-2500	2500	8000	90	149	F80	200X104	164	110	80	14400	14400	12800	450X2	19.43	71.7	78
GFNL-3000	3000	8500	110	149	F85	218X104	170	120	84	16000	16000	13100	500X2	23.8	88.4	79
GFNL-3500	3500	8500	132	149	F85	240X104	170	116	87	17000	17000	15400	500X2	26.64	94.7	79
GFNL-4000	4000	9140	160	110	F92	252X104	170	120	90	18000	18000	16990	600X2	38.14	102.5	79
GFNL-4500	4500	9140	185	110	F92	282X104	170	120	93	18800	18000	14400	600X2	41.6	112.8	80
GFNL-5000	5000	10000	200	110	F100	315X104	170	120	96	19800	18800	14400	600X2	45.8	129.6	80

- Notes:
- The cooling water flow rates listed in this table are for wet-bulb temperature $t = 28^{\circ}\text{C}$ and dry-bulb temperature 31.5°C , $\Delta t = 10^{\circ}\text{C}$, $t_1 = 42^{\circ}\text{C}$, and $t_2 = 32^{\circ}\text{C}$.
 - The noise levels in the table are for low-speed motor operation at night with a dripping sound-absorbing pad installed. Without the dripping sound-absorbing pad, the noise levels will be 5 dB(A) higher than the values in the table.



Evaporative Condenser

- ZHX Series Combined Flow
- ZNX Series Counter Flow
- ZCX Series Cross Flow

Evaporative Condenser is widely used in energy chemical industry, Pharmaceuticals coal, electricity, industrial refrigeration, beer, beverage, food processing, cold storage etc

- Energy saving ,water saving
- Environmental-friendly
- Low maintenance costs
- Convenient transportation and installation

The food industry

- Poultry Slaughtering Plant
- Multi-purpose cold Storage
- Beer and beverage industry
- Industrial ice/Skating Rink
- Ice cream factory
- Fish processing industry



Chemical medicine

- Inter-cooling of methanol/methanol synthetic ammonia compressor
- Syngas cooling condensation
- Methanol distillation process cooling condensation
- Gas cooling of natural gas or coke gas exchange process
- Purification process as well as cooling condensation
- Steam condensation of turbine
- Ethyl acetate condensation



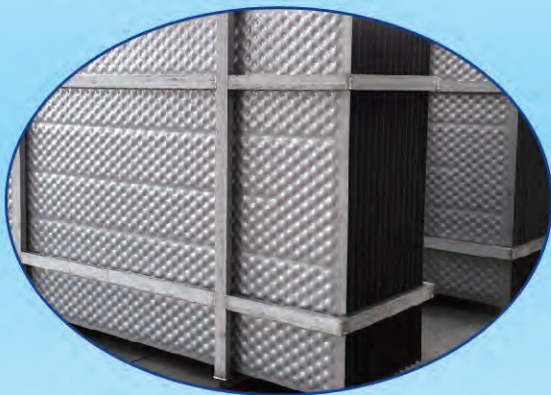
Evaporative Condenser Main Parts

AC/EC Fan :

Protection class IP55/56/65/66
Low energy consumption
Multi-wing Blade (optional)
WEG/ABB/SIEMENS/CHINA BRAND

Tube Coil:

Round tube/Oval tube
Hot Dip Galvanized Steel/SS304/SS316L/Copper
Plate Coil:SS304/SS316L



Drift eliminator :

PVC/Aluminum Zinc-alloy
U type/W type/honeycomb type

Water pump :

Cast iron/SS304/SS316L
WEG/ABB/SIEMENS/CHINA BRAND

Nozzle :

ABS/ PP/SS304

Casing :

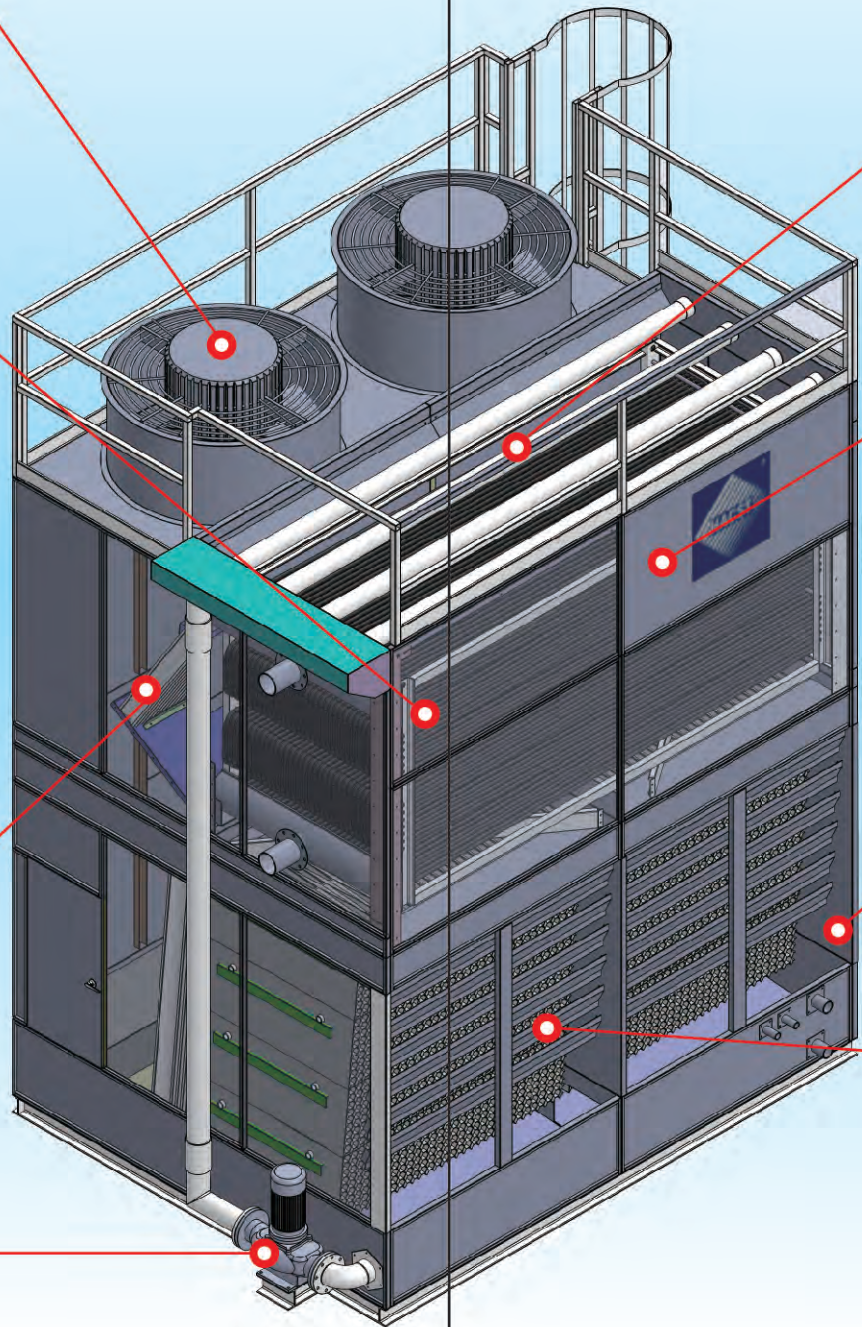
Imported Galvanized Steel Sheet G235
/with Powder Coating/Super Dyma Steel
SS304/SS316L/FRP(optional for counter flow)

Air-inlet louver (optional) :

Hot Dip Galvanized Steel/SS304/SS316L/PVC with
UV protection

Fill:

PVC/CPVC/PP



Heat rejection correction index for R717

Condensing temperature	Air inlet wet bulb temperature																		
	10	12	14	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
29	0.72	0.78	0.86	0.96	1.01	1.09	1.18	1.30	1.43	1.60	1.84	2.16	2.66	/	/	/	/	/	/
30	0.68	0.73	0.81	0.88	0.94	1.00	1.07	1.15	1.27	1.40	1.59	1.79	2.13	/	/	/	/	/	/
31	0.64	0.68	0.74	0.82	0.86	0.91	0.97	1.04	1.12	1.22	1.36	1.52	1.71	2.06	/	/	/	/	/
32	0.61	0.65	0.69	0.74	0.80	0.84	0.89	0.95	1.02	1.10	1.20	1.34	1.49	1.70	2.02	/	/	/	/
33	0.57	0.61	0.65	0.70	0.73	0.78	0.82	0.87	0.92	0.99	1.07	1.16	1.29	1.45	1.66	1.96	/	/	/
34	0.55	0.58	0.62	0.66	0.69	0.72	0.76	0.80	0.86	0.90	0.96	1.04	1.14	1.27	1.42	1.63	/	/	/
35	0.52	0.54	0.58	0.62	0.64	0.67	0.70	0.73	0.78	0.83	0.88	0.94	1.02	1.11	1.23	1.37	1.59	1.86	2.16
36	0.50	0.52	0.55	0.59	0.61	0.63	0.66	0.69	0.72	0.75	0.81	0.86	0.92	1.00	1.09	1.22	1.35	1.54	1.76
37	0.47	0.49	0.52	0.55	0.57	0.59	0.61	0.64	0.67	0.70	0.73	0.79	0.84	0.90	0.97	1.06	1.21	1.32	1.52
38	0.45	0.47	0.49	0.53	0.55	0.56	0.58	0.60	0.62	0.65	0.68	0.72	0.76	0.82	0.88	0.96	1.04	1.19	1.35
39	0.43	0.45	0.47	0.50	0.52	0.53	0.54	0.56	0.58	0.61	0.63	0.67	0.70	0.74	0.80	0.86	0.95	1.02	1.18
40	0.42	0.43	0.45	0.48	0.49	0.50	0.52	0.53	0.55	0.58	0.60	0.62	0.66	0.69	0.73	0.78	0.85	0.93	1.01
41	0.40	0.41	0.43	0.45	0.46	0.47	0.49	0.50	0.52	0.54	0.58	0.58	0.61	0.64	0.67	0.71	0.76	0.83	0.92
42	0.39	0.40	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.51	0.55	0.55	0.57	0.60	0.62	0.66	0.70	0.74	0.82
43	0.37	0.38	0.39	0.41	0.42	0.43	0.44	0.45	0.46	0.48	0.51	0.51	0.53	0.55	0.58	0.61	0.65	0.69	0.72
44	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.46	0.49	0.49	0.50	0.52	0.54	0.57	0.60	0.64	0.68
45	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.46	0.46	0.47	0.49	0.51	0.53	0.56	0.59	0.63

Heat rejection correction index for R22 and R134a

Condensing temperature	Air inlet wet bulb temperature															
℃	10	12	14	16	18	19	20	21	22	23	24	25	26	28	30	32
29	0.86	0.94	1.03	1.15	1.37	1.43	1.55	1.65	1.92	2.10	2.52	3.10	/	/	/	/
31	0.77	0.83	0.90	0.99	1.10	1.10	1.24	1.34	1.47	1.62	1.83	2.10	2.48	/	/	/
33	0.69	0.73	0.79	0.86	0.94	1.00	1.02	1.10	1.20	1.28	1.40	1.56	1.75	2.38	/	/
35	0.62	0.66	0.70	0.76	0.83	0.86	0.90	0.93	1.00	1.07	1.18	1.25	1.38	1.68	2.12	2.68
37	0.57	0.60	0.63	0.67	0.72	0.76	0.78	0.82	0.85	0.90	0.96	1.02	1.10	1.30	1.56	1.89
39	0.55	0.57	0.59	0.62	0.65	0.68	0.70	0.72	0.75	0.79	0.84	0.88	0.95	1.10	1.26	1.46
41	0.48	0.49	0.52	0.54	0.57	0.59	0.61	0.63	0.66	0.68	0.71	0.75	0.78	0.90	1.03	1.19
43	0.44	0.46	0.48	0.50	0.52	0.54	0.55	0.57	0.59	0.61	0.63	0.66	0.68	0.75	0.86	0.97
45	0.41	0.42	0.44	0.46	0.48	0.49	0.50	0.52	0.53	0.55	0.58	0.58	0.61	0.66	0.74	0.83

1、Model Selection

1. Confirm Total System Heat Rejection Capacity: Total System Heat Rejection Capacity=Total latent heat of condensing medium inside + Total heat rejection of condensing medium (For refrigeration system, it could be selected based on system refrigeration capacity)

2. Confirm the design conditions: Condensing Medium, Condensation Temperature, and Wet Bulb Temperature3, Determine the correction coefficient'R'by lookup correction coefficient table.

4. Determine Corrected Heat Rejection Capacity: Correct- ed Heat Rejection Capacity= Total System Heat Rejection Capacity*'R' (correction coefficient).

5. Model selection: select the evaporative condenser model with rated capacity equal to or greater than the Corrected Heat Rejection Capacity.

2、Example

(Take Ammonia refrigeration as an example)

1. Total Heat Rejection Capacity of the ammonia refrigeration system is 1200 kw. (Total Heat Rejection Capacity= Compressor refrigerating capacity+ Compressor shaft power)

2. Operating condition: Condensation temperature 36 C. Wet Bulb Temperature 28 C.

3. Lookup 'Correction Coefficient Table for R717', and get the correction coefficient 1.22.

4. Determine Corrected Heat Rejection Capacity:1200kwx 1.22=1464kw

5. According to ZHX model table of HAC evaporative condenser, select model ZHX-1520 as it's the smallest one in these models with capacity greater than1464 kw.

一、Evaporative Condenser Data Sheet

1.1 Combined Flow Evaporative Condenser Data Sheet

Model	Capacity (KW)	Fan			Water Pump			Inlet and outlet pipe DN(mm)	Weight (kg)		Dimension(mm)		
		Unit	Power (kw)	Fan capacity (m³/h)	Unit	Power (kw)	Flow rate (m³/h)		Shipping	Operating	Length	Width	Height
ZHX-320	320	1	3	46000	1	1.1	53	DN100/DN80	2390	3790	1925	2380	4220
ZHX-430	430	1	4	60000	1	1.1	53	DN100/DN80	2510	3910	1925	2380	4220
ZHX-525	525	1	5.5	65000	1	1.5	70	DN100/DN80	2760	4340	1925	2580	4220
ZHX-595	595	1	5.5	75000	1	1.5	70	DN100/DN80	3290	5140	1925	2980	4220
ZHX-700	700	1	7.5	87000	1	1.5	70	DN100/DN80	3680	5530	1925	2980	4450
ZHX-800	800	2	4	2*45000	1	2.2	100	DN100/DN80	4230	7650	3770	2200	4220
ZHX-870	870	2	4	2*45000	1	2.2	100	DN100/DN80	4510	7930	3770	2200	4720
ZHX-980	980	2	4	2*45000	1	2.2	100	DN100/DN80	4620	8040	3770	2200	4965
ZHX-1100	1100	3	4	3*45000	1	3	150	DN125/DN100	6170	10170	4240	2200	4720
ZHX-1250	1250	3	4	3*45000	1	3	150	DN125/DN100	6510	10510	4240	2200	4965
ZHX-1380	1380	4	4	4*45000	1	4	180	DN125/DN100	7100	11950	5610	2200	4220
ZHX-1520	1520	4	4	4*45000	1	4	180	DN125/DN100	7310	12160	5610	2200	4730
ZHX-1680	1680	4	4	4*45000	1	4	180	2-DN100/DN100	7590	12440	5610	2200	4965
ZHX-1840	1840	4	4	4*45000	1	5.5	230	2-DN100/2-DN100	8920	15580	7450	2200	4220
ZHX-2010	2010	4	4	4*45000	1	5.5	230	2-DN100/2-DN100	9330	15990	7450	2200	4720
ZHX-2245	2245	4	4	4*45000	1	5.5	230	2-DN125/2-DN100	9550	16210	7450	2200	4965
ZHX-2450	2450	5	4	5*45000	2	2*3	2*150	2-DN125/2-DN100	11650	19090	9300	2200	4720
ZHX-2600	2680	5	4	5*45000	2	2*3	2*150	2-DN125/2-DN100	12350	19790	9300	2200	4965
ZHX-2820	2820	6	4	6*45000	2	2*3	2*150	2-DN125/2-DN100	12490	19930	9300	2200	4965
ZHX-3000	3000	6	4	6*45000	2	2*4	2*180	2-DN125/2-DN100	13410	20220	10400	2200	4965

1.2 Counter Flow Evaporative Condenser Data Sheet

Model	Capacity (KW)	Fan			Water Pump			Inlet and outlet pipe DN(mm)	Weight (kg)		Dimension(mm)		
		Unit	Power (kw)	Fan capacity (m³/h)	Unit	Power (kw)	Flow rate (m³/h)		Shipping	Operating	Length	Width	Height
ZNX-70	70	1	0.75	15000	1	0.37	16	DN50/DN50	860	1630	1230	1150	3180
ZNX-100	100	1	1.5	18000	1	0.55	23	DN50/DN50	890	1660	1230	1150	3440
ZNX-200	200	1	2.2	30000	1	0.75	28	DN50/DN50	1370	2480	1925	1150	3650
ZNX-320	320	1	3	45000	1	1.1	53	DN80/DN80	1990	3620	1925	1840	3840
ZNX-430	430	1	4	60000	1	1.1	53	DN80/DN80	2120	3790	1925	1840	4220
ZNX-525	525	1	5.5	75000	1	1.5	70	DN80/DN80	2420	4490	2470	1840	4220
ZNX-595	595	1	7.5	87000	1	1.5	70	DN100/DN80	2690	4760	2470	1840	4450
ZNX-700	700	1	7.5	100000	1	2.2	84	DN100/DN80	3650	6080	2790	1840	4450
ZNX-800	800	2	4	2*65000	1	2.2	100	DN100/DN80	4150	7480	3770	1840	4220
ZNX-870	870	2	4	2*65000	1	2.2	100	DN100/DN80	4680	8010	3770	1840	4220
ZNX-980	980	2	4	2*65000	1	2.2	100	DN100/DN80	5120	8450	3770	1840	4450
ZNX-1100	1100	2	5.5	2*75000	1	3	120	2-DN100/2-DN80	5360	9430	3770	2200	4220
ZNX-1250	1250	2	5.5	2*75000	1	3	120	2-DN100/2-DN80	5980	10050	3770	2200	4450
ZNX-1380	1380	2	5.5	2*87000	1	4	180	2-DN100/2-DN80	6230	11270	4846	2200	4350
ZNX-1520	1520	2	7.5	2*100000	1	4	180	2-DN100/2-DN80	6560	11590	4846	2200	4650
ZNX-1680	1680	3	4	3*65000	1	5.5	230	2-DN100/2-DN80	7850	13730	5610	2200	4350
ZNX-1840	1840	3	5.5	3*75000	1	5.5	230	2-DN100/2-DN100	8450	14330	5610	2200	4650
ZNX-2010	2010	3	5.5	3*80000	1	5.5	230	2-DN100/2-DN100	9180	15380	5610	2200	4680
ZNX-2245	2245	3	7.5	3*87000	2	3	2*120	4-DN100/4-DN80	9780	17340	6510	2200	4650
ZNX-2450	2450	4	5.5	4*75000	2	3	2*120	4-DN100/4-DN80	10860	18520	7230	2200	4650
ZNX-2600	2600	4	5.5	4*75000	2	3	2*120	4-DN100/4-DN80	11480	20880	7450	2200	4650
ZNX-2820	2820	4	5.5	4*75000	2	3	2*150	4-DN100/4-DN80	11720	21120	8050	2200	4965
ZNX-3000	3000	4	7.5	4*87000	2	4	2*180	4-DN100/4-DN80	12580	22670	8640	2200	4965

Notes:

1. Do not use for construction. This brochure includes data current at the time of publication which should be reconfirmed at the time of purchase
-

Evaporative Condenser With Plate Coil Data Sheet

Model	Capacity(kw)	Fan			Water Pump			Inlet and outlet pipe DN(mm)	Ammonia incharge (kg)	Weight (kg)		Dimension(mm)		
		Unit	Power (kw)	Fan capacity (m³/h)	Unit	Power (kw)	Flow rate (m³/h)			Shipping	Operating	Length	Width	Height
ZHX-300B	300	1	4	52800	1	1.1	53	DN100/DN80	12	2060	3020	1265	2220	4184
ZHX-400B	400	1	4	62000	1	1.1	53	DN100/DN80	16	2360	3520	1575	2220	4184
ZHX-500B	500	1	4	62000	1	1.5	70	DN100/DN80	20	2670	4020	1825	2220	4184
ZHX-600B	600	1	4	62000	1	1.5	70	DN100/DN80	24	3010	4620	2155	2220	4184
ZHX-700B	700	1	5.5	74000	1	1.5	70	DN100/DN80	28	3310	5170	2435	2220	4184
ZHX-800B	800	1	7.5	88000	1	2.2	100	DN100/DN80	32	4190	6170	1625	3380	4184
ZHX-900B	900	1	7.5	90000	1	2.2	100	DN100/DN80	36	4510	6920	1825	3610	4184
ZHX-1000B	1000	2	4	62000	1	2.2	100	DN100/DN80	40	4810	7420	3170	2220	4964
ZHX-1100B	1100	2	4	62000	1	2.2	100	DN125/DN100	44	5110	7970	3420	2220	4964
ZHX-1200B	1200	2	5.5	74000	1	4	150	DN125/DN100	48	5410	8520	3670	2220	4964
ZHX-1300B	1300	2	5.5	74000	1	4	150	DN125/DN100	52	5760	9070	3900	2220	4964
ZHX-1400B	1400	2	5.5	74000	1	4	150	DN125/DN100	56	6060	9620	4130	2220	4964
ZHX-1500B	1500	3	4	62000	1	4	150	DN125/DN100	60	5960	10820	4665	2220	4964
ZHX-1600B	1600	3	4	62000	1	4	150	DN125/DN100	64	7260	11370	4915	2220	4964
ZHX-1700B	1700	3	4	62000	1	4	180	2-DN100/DN100	68	7610	11920	5165	2220	4964
ZHX-1800B	1800	3	5.5	74000	1	4	180	2-DN100/DN100	72	8060	12770	5415	2220	4964
ZHX-1900B	1900	3	5.5	74000	1	4	180	2-DN100/DN100	76	8410	13320	5645	2220	4964
ZHX-2000B	2000	3	5.5	74000	1	5.5	233	2-DN100/2-DN100	80	8760	13870	5875	2220	4964
ZHX-2100B	2100	3	5.5	74000	1	5.5	233	2-DN100/2-DN100	84	9060	14420	6205	2220	4964
ZHX-2200B	2200	4	4	62000	1	5.5	233	2-DN125/2-DN100	88	9910	15620	6760	2220	4964
ZHX-2300B	2300	4	4	62000	1	5.5	233	2-DN125/2-DN100	92	10260	16170	7010	2220	4964
ZHX-2400B	2400	4	4	62000	1	5.5	233	2-DN125/2-DN100	96	10560	16720	7260	2220	4964
ZHX-2500B	2500	4	5.5	74000	1	5.5	233	2-DN125/2-DN100	100	10860	17270	7490	2220	4964
ZHX-2600B	2600	4	5.5	74000	1	5.5	233	2-DN125/2-DN100	104	11170	17770	7720	2220	4964
ZHX-2700B	2700	4	5.5	74000	2	4	150	2-DN125/2-DN100	108	11510	18320	7950	2220	4964
ZHX-2800B	2800	4	5.5	74000	2	4	150	2-DN125/2-DN100	112	11810	18870	8180	2220	4964
ZHX-2900B	2900	5	4	62000	2	4	150	2-DN125/2-DN100	116	12810	20220	8755	2220	4964
ZHX-3000B	3000	5	4	62000	2	4	150	2-DN125/2-DN100	120	13010	20670	9005	2220	4964
ZHX-3100B	3100	5	5.5	74000	2	4	150	2-DN125/2-DN100	124	13360	21220	9235	2220	4964
ZHX-3200B	3200	5	5.5	74000	2	4	150	2-DN125/2-DN100	128	13660	21720	9465	2220	4964
ZHX-3300B	3300	5	5.5	74000	2	4	150	2-DN125/2-DN100	132	14010	22210	9695	2220	4964
ZHX-3400B	3400	5	5.5	74000	2	4	150	4-DN100/2-DN100	136	14250	22770	9925	2220	4964
ZHX-3500B	3500	5	5.5	74000	2	4	150	4-DN100/2-DN100	140	14610	23320	10155	2220	4964
ZHX-3600B	3600	6	4	62000	2	4	180	4-DN100/2-DN100	144	15510	24820	10750	2220	4964
ZHX-3700B	3700	6	5.5	74000	2	4	180	4-DN100/2-DN100	148	15810	25170	10980	2220	4964
ZHX-3800B	3800	6	5.5	74000	2	4	180	4-DN100/2-DN100	152	16260	25820	11210	2220	4964
ZHX-3900B	3900	6	5.5	74000	2	4	180	4-DN100/2-DN100	156	16560	26370	11440	2220	4964
ZHX-4000B	4000	6	5.5	74000	2	4	180	4-DN100/2-DN100	160	16910	26870	11670	2220	4964

Evaporative Condenser with Centrifugal Fan



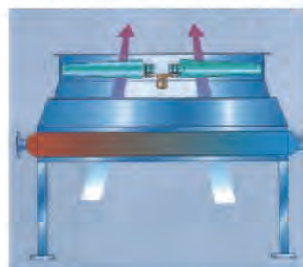
ZCL Series Evaporative Condenser with Centrifugal Fan Data Sheet

Model	Capacity KW	Fan			Pump			Inlet and outlet pipe DN(mm)	Weight (kg)		Dimension(mm)			
		Unit	Power (kw)	Fan capacity (m³/h)	Unit	Power (kw)	Flow rate (m³/h)		Shipping	Operating	Length	Upper part width	Total width	Height
ZCL-175	175	1	4	26000	1	1.1	50	DN50/DN50	2060	2980	1930	1220	1700	3390
ZCL-220	220	1	5.5	32000	1	1.1	50	DN50/DN50	2230	3290	1930	1220	1700	3610
ZCL-260	260	1	5.5	32000	1	1.5	70	DN65/DN65	2720	4050	2820	1220	1700	3190
ZCL-340	340	1	7.5	35000	1	1.5	70	DN65/DN65	2940	4280	2820	1220	1700	3410
ZCL-410	410	1	7.5	35000	1	1.5	70	DN80/DN80	3090	4490	2820	1220	1700	3630
ZCL-520	520	1	11	60000	1	2.2	100	DN80/DN80	3810	4960	3290	1840	1840	3430
ZCL-650	650	1	11	64000	1	2.2	100	DN100/DN100	4210	4360	3290	1840	1840	3650
ZCL-750	750	1	18.5	90000	1	3	150	2-DN80/2-DN80	5890	8260	3870	2200	2200	3960
ZCL-950	950	1	22	100000	1	3	150	2-DN80/2-DN80	5890	8260	3870	2200	2200	3960
ZCL-1150	1150	1	22	100000	1	3	150	2-DN100/2-DN100	6430	8810	3870	2200	2200	4170
ZCL-1200	1200	1+1	7.5+15	105000	1	4	180	2-DN100/2-DN100	6750	10300	4860	2200	2200	3650
ZCL-1380	1380	1+1	7.5+15	120000	1	5.5	233	2-DN100/2-DN100	7420	11500	5530	2200	2200	3740
ZCL-1450	1450	1+1	7.5+15	105000	1	4	180	2-DN100/2-DN100	7430	11020	4860	2200	2200	3870
ZCL-1520	1520	1+1	11+22	150000	1	5.5	230	2-DN100/2-DN100	8100	12150	6070	2200	2200	3950
ZCL-1650	1650	1+1	7.5+15	120000	1	5.5	233	2-DN125/2-DN125	8220	12100	5530	2200	2200	3960
ZCL-1750	1750	2	15+15	160000	2	3	150	2-DN125/2-DN125	8760	13600	6820	2200	2200	3740
ZCL-1850	1850	1+1	11+22	150000	1	5.5	230	2-DN125/2-DN125	8920	12800	6070	2200	2200	4180
ZCL-2100	2100	2	15+15	160000	2	3	150	2-DN125/2-DN125	9710	14600	6820	2200	2200	3960
ZCL-2300	2300	2	18.5+18.5	180000	2	3	150	4-DN100/4-DN100	11950	16680	7650	2200	2200	4170
ZCL-2350	2350	2	22+22	200000	2	3	150	4-DN100/4-DN100	11950	16680	7650	2200	2200	4170



Air cooled heat exchanger is an equipment that use air as the cooling medium to cool or condense the fluid inside of its fin-tube. An air cooled heat exchanger consists of fin tube bundles, fan, louver, framework, maintenance platform and other components required by the users. Air cooled heat exchangers feature low maintenance cost, safe and reliable operation and long service life. Many users select air cooled heat exchangers in their project because water usage issue and water pollution issue are eliminated. So it's mainly used in the area lack of water. Air cooled heat exchangers are widely used in metallurgy, petrochemical industry, chemical industry, pharmaceutical industry, coal industry, electric power industry, etc.

Induced Draft Type



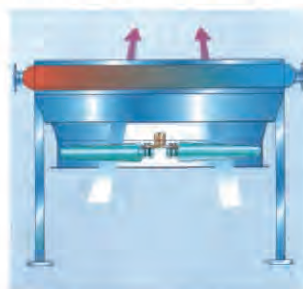
The fin-tube bundle is mounted below the fan and air duct. Induced draft type air cooled heat exchanger has stable heat exchange performance because the air duct can keep the fin tube bundle from dust, rain, snow and exposure. Meanwhile, it has advantages of equal air distribution, low noise, long service time and less heat exchange circulation.

Pent-roof Type



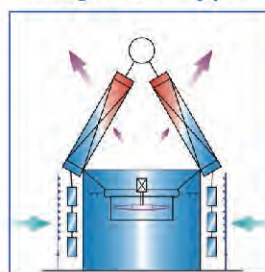
The fin-tube bundles are mounted on the top of the framework at a slant angle of 60°, this covers a smaller area and suitable for gas condensing. The resistance of inside tube and heat transfer coefficient of pent-roof air cooled heat exchanger are better than the horizontal type.

Forced Draft Type



Forced draft type air cooled heat exchanger is easy for maintenance because the fin tube bundle is mounted on the top of the fan and air duct; the fan motor is mounted below of the equipment. In addition, the fan motor has longer service life because of the lower work temperature.

Integrative Type

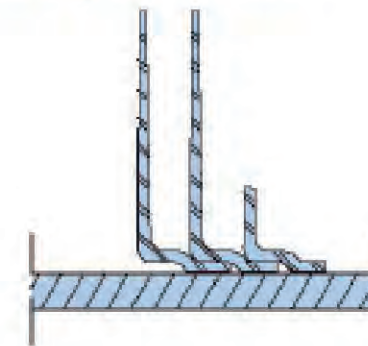


Fin-tube bundle (Part I) is mounted on the top of framework at a slant angle of 60°, it covers a smaller area. Fin-tube bundles (Part II) are placed at the both sides of the fan air inlet, and the water spraying system is installed at the windward side of the tube bundles. The water spraying system will greatly enhance the thermal discharge performance of the equipment under the condition of extremely high temperature.



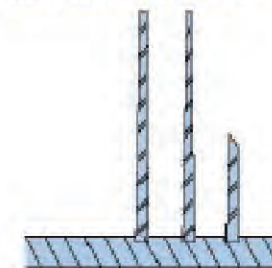
Fin-tube is the most important heat exchange components for air cooled heat exchanger, and its structure determines the overall performance of the air cooled heat exchanger. In addition, the way of connection between fin and bare tube also affects the heat transfer performance. The fin connected to steel tube or stainless steel tube is mainly made from aluminum, steel or hot-dip galvanized steel. High-efficiency heat exchange fin tube

Double L type twined tube



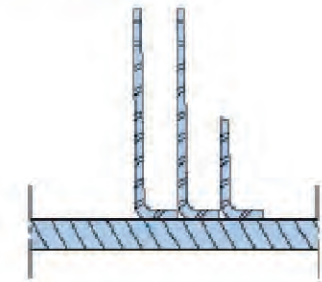
The aluminum tape is made into double L shape after twisting. The root of the fin overlaps each other and contacts well with the tube wall. This ensures the full coverage of the wall, and improves the corrosion resistance. It is applicable to the system temperature within 200°C, and can be applied in wet air cooler, but it is difficult to process and the cost is accordingly high.

G type embedded fin tube



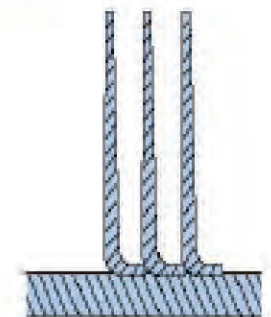
The surface of bare tube is dug with equidistant grooves before the installation of fin. After that the rolling on the edge of grooves helps form a strong connection between fin and tube. This technology features with high heat transfer efficiency, and hardly being affected by the high temperature and external force, but it is not resistant to corrosion and the cost is low.

L type twined tube



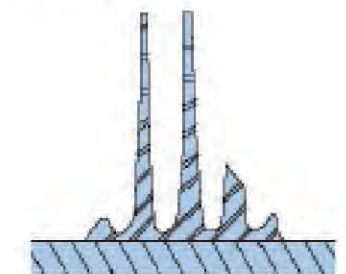
The aluminum tape is prefabricated into L type and spirally twines around the bare tube, this technology increases the contact area between the aluminum tape and the bare tube. Heat is transferred from the surface of bare tube to the fin tube, and larger contact area greatly improve the heat exchange efficiency. L type twined tube is suitable to be used under low temperature condition. It is applicable to the system with low budget and the system temperature does not exceed 150°C.

KL knurling type fin tube



It is an improvement of L type twined tube. The bare tube surface was knurled and followed by rolling on the root of "L" which implants part of the root of "L" into the parent tube surface. This process improves the heat exchange efficiency and anti-corrosion ability, making the operating temperature could reach up to 250°C.

DR type fin tube



The aluminum tube is mechanically rolled on the bare tube. This manufacturing process makes the corrosion resistant performance of fin tube is good and the heat transfer efficiency is high. And also the integrity of the fin and rigidity is great. The DR type fin tube is easy to clean but the cost is very high and requires large consumption of aluminum.

Adiabatic cooler

Adiabatic coolers-dry cooler are widely used in various industries, such as HVAC (heating, ventilation, and air conditioning), power generation, data centers, and industrial process cooling. We could develop the Modular design and custom design to fully satisfy the specific request of our customers with design to be energy-efficient and environmentally friendly.

Product features and specifications:

Tube material: Aluminum, copper, or stainless steel

Fan type: Axial or centrifugal

Fan quantity: Single or multiple

Fan motor: AC or EC

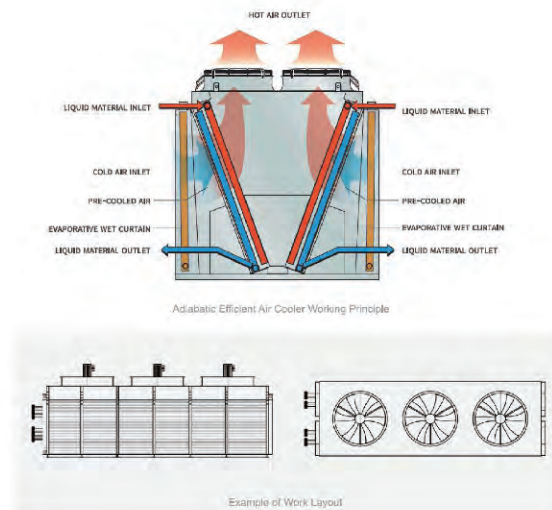
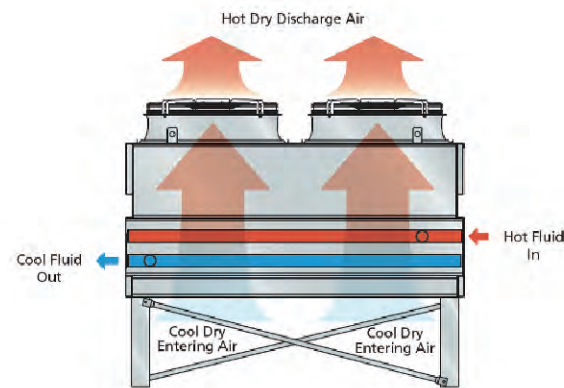
Fin type: Corrugated or flat

Fin spacing: 2.1mm, 2.5mm, or 3.0mm

Ambient temperature range: -40°C to 50°C

Design models :V-type design model and Flat-type design model

Cooling capacity: Up to 2500 kW

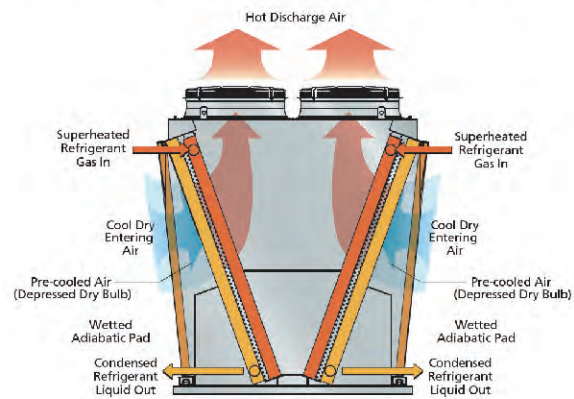


For special request of outlet temperature, we have developed the pre-cooling wet pad and Spray system to decrease the temperature of environment ambient temperature to get the lower outlet temperature.

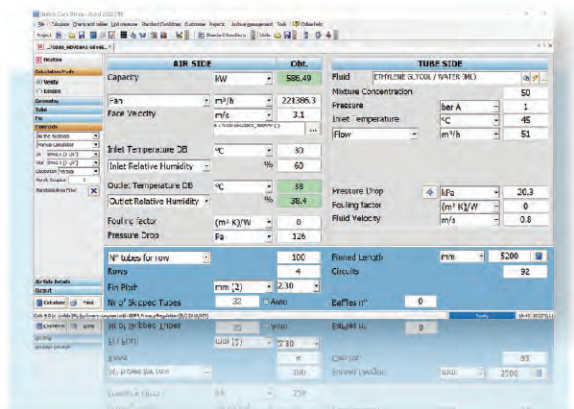


Adiabatic coolers-adiabatic condenser .Water consumption is an ever increasing important criterion for choosing equipment. The growing scarcity of water and rising costs of water inspire us to offer eco-friendly products to help minimize natural resource consumption.

HACST adiabatic condenser uses the latest in heat transfer and controls technology. The delivery system utilizes water management and cooling pads to maximize adiabatic efficiency, minimize water consumption and safely manage water usage. Water consumption can be reduced 60% to 90% versus a conventional water cooled system and reduces peak energy demand versus an air cooled system.



We adopt 3D design software such as Solidworks, and the performance design is assisted by professional fin heat exchanger design software Coil 8.0, EASY production software, and Mcoil sales design software and quotation software and other auxiliary tools.



EBM, ZIEHL-ABEGG and Kemao; Fan type AC and EC; The number of fans can range from 1 to 22, and the length of the product is 13.5 meters. Can be designed to match the diameter from 300mm to 1250, 1800 more specifications of axial fan radiator.

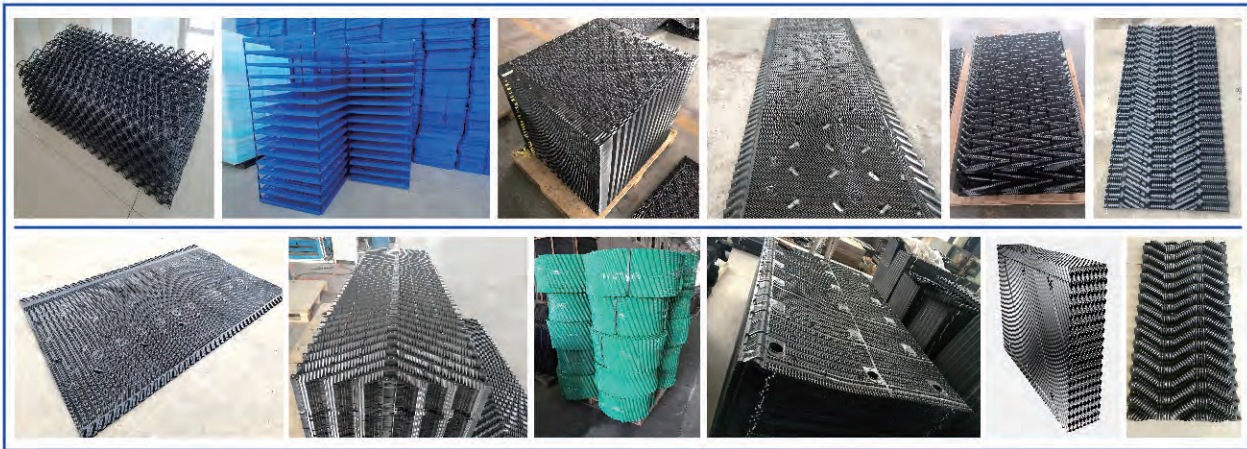


COOLING TOWER PARTS

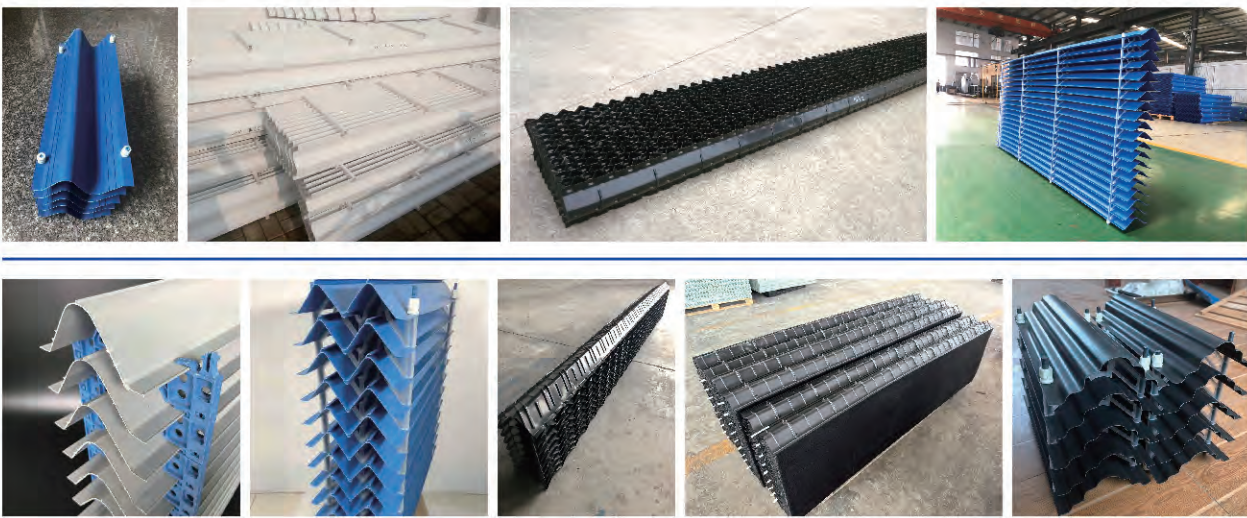
Main parts: cooling tower fill,drift eliminator,air inlet louver, spray nozzle,sprinkler head,ect
We use high quality raw material,with good toughness, high strength and long service life

Cooling tower fill

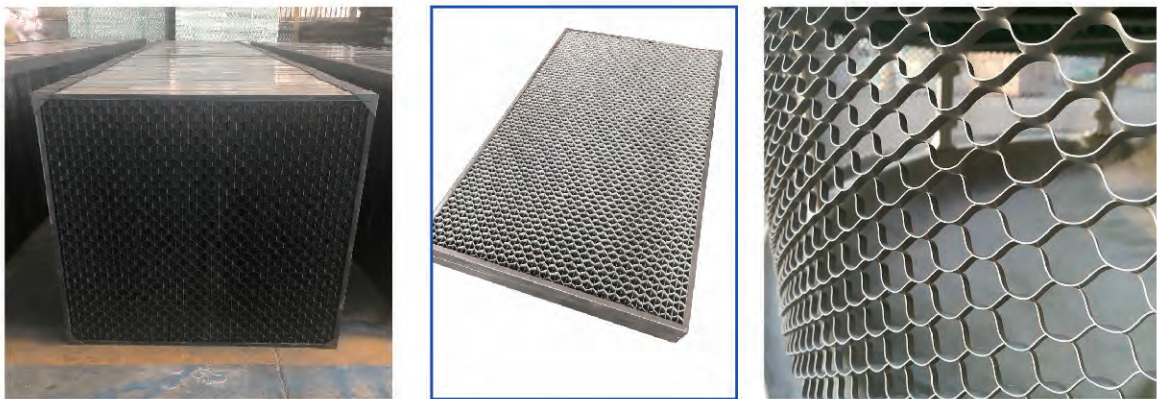
Material: PVC, CPVC, PP
Raw material thickness: 0.28-0.8mm
We can replace BAC,EVAPCO,Liangchi,Marley,Brentwood,Kuken,spindle etc brand cooling tower fill



Drift eliminator,material: PVC,PP, thickness:0.4-2.5mm



Air inlet louver, material: PVC thickness:0.6-0.8mm



Spray nozzle& Sprinkler head &fan blades&motor

