# Welcome to Tianchuan!

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## WHO WE ARE?

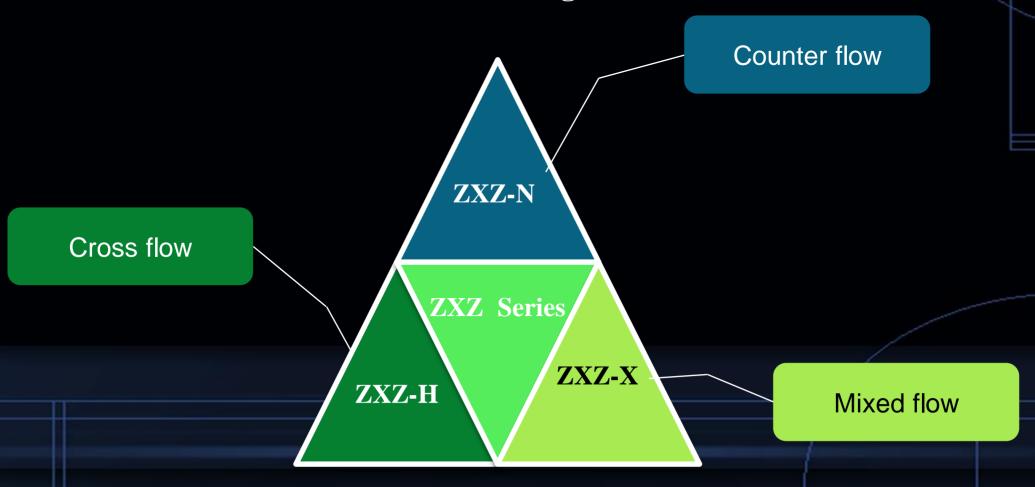
Changzhou Tianchuan Electromechanical Technology Co., LTD. is a manufacturer specializing in the research, development, and manufacture of closed cooling towers. The main production of counterflow closed cooling tower, cross-flow closed cooling tower, mixed flow closed cooling tower etc. We rely on strong technical force, scientific management system, and perfect after-sales service, excellent cost-effective to the pursuit of customer satisfaction as our responsibility.

We have a strong engineering team, not only to provide customers with a full range of cooling equipment but also from the engineering designinstallation-commissioning-maintenance, to provide a full range of watercooled system solutions, do everything possible to provide customers with convenience.

We are in the improvement of products on the basis of continuous innovation, advanced products, perfect service return new and old customers strong support. "Good quality, customer first" is our eternal commitment to welcome new and old customers to purchase.



Main Products: ZXZ Series closed cooling tower



#### Product introduction: ZXZ Series closed cooling tower

The main components of closed cooling tower consists of machine set, water basin, circulating water pump and electric control cabinet. The machine set consists of casing, heat exchanger coils, cooling fans, spray pumps, dehydrater, water basin, and pipeline valves. During the operation of the equipment, the cooling medium (soft water, oil or other liquid) is driven by the main circulating pump to circulate between the coils and the equipment to be cooled. The spray water is evenly sprayed on the cooler to form a uniform water film on the surface. Cold air enters the tower from the air-inlet grill below the tower body, and passes through the surface of the cooling coil in countercurrent to the spray water. In this process, there are two heat exchange modes: Heat conduction between the cold air and the cooling medium. The spray water evaporates and absorbs heat. After the heat is absorbed, the saturated hot humid air is discharged from the fan to the atmosphere. The rest of the spray water flows into the water basin, and is then sent to the spray system by the water pump. In this way, the medium in the cooling coil is cooled and cooled.

Closed cooling tower cooling has two modes: air cooling alone and air cooling + spray water cooling. The switching of the two modes is automatically realized by the electronic control system according to the working conditions, thus achieving energy saving and consumption reduction.

ZXZ Series closed cooling tower







Structure

**Working Principle** 

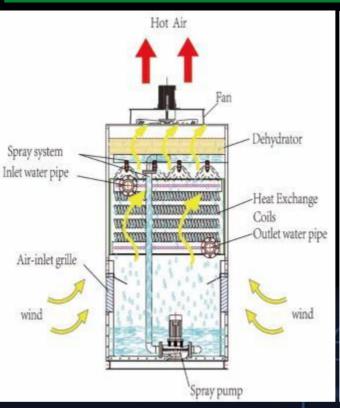
**Product parameters** 

**ZXZ-N** series closed cooling tower

# Counterflow type Hot Air Hot Air Fan Dehydrator Spray system pipe Outlet water pipe Coulet water pipe Colls Water Pipe Overflow Wind Water Spray

**Structure** 

#### **Working Principle**



During the operation of this series of cooling towers, the wind enters from the air inlet grilles on both sides of the bottom of the tower and is guided by the fan to make contact with the cooling coil from bottom to top. Sprinkler system above the cooling coil, spray water from top to bottom contact with the cooling coil.

#### **ZXZ-N** series closed cooling tower

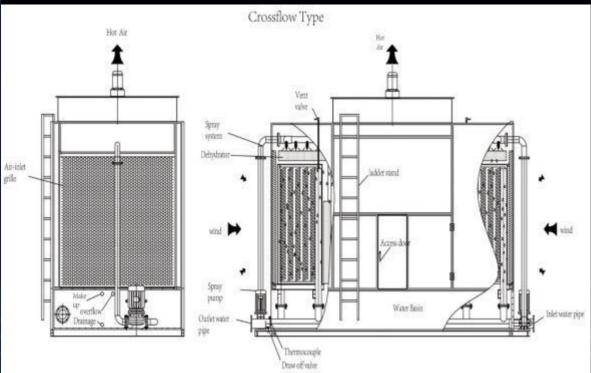
#### **Product parameters**

Model No.	Capacity (kcal/h)	Fan		Spray Pump		Connecting Pipe(mm)			Overall Dimensions (mm)			Net
		Power	Air Volumn	Power	Flow	Inlet/	Make Dra	Drainage	L	W	Н	Weight
		(KW)	$(m^3/h)$	(KW)	Rate	Outlet	Up	Diamage				(kg)
ZXZ-N6T	30000	0.75	12000	0.75	20	DN50	DN20	DN40	1550	850	1950	370
ZXZ-N10T	50000	0.75	12000	0.75	20	DN50	DN20	DN40	1550	850	1950	400
ZXZ-N15T	75000	0.75 $\times$ 2	$12000 \times 2$	0.75	20	DN65	DN20	DN40	2300	1000	1950	500
ZXZ-N20T	100000	0.75 $\times$ 2	$12000 \times 2$	0.75	20	DN65	DN20	DN40	2300	1000	1950	540
ZXZ-N30T	150000	$1.1\times2$	$16000 \times 2$	1. 1	45	DN65	DN20	DN40	2780	1170	2380	710
ZXZ-N40T	200000	$1.1\times2$	$16000 \times 2$	1. 1	45	DN80	DN20	DN40	2780	1170	2380	775
ZXZ-N50T	250000	$1.5\times2$	$22000 \times 2$	1. 1	45	DN80	DN20	DN40	2780	1300	2470	890
ZXZ-N60T	300000	$1.5\times2$	$22000 \times 2$	1. 1	45	DN100	DN20	DN40	2780	1300	2470	980
ZXZ-N70T	350000	$1.5\times2$	$22000 \times 2$	1. 1	45	DN100	DN20	DN40	2780	1500	2720	1140
ZXZ-N80T	400000	$1.5\times2$	$22000 \times 2$	1. 5	65	DN100	DN20	DN40	2780	1500	2720	1200
ZXZ-N100T	500000	$1.1\times4$	$16000 \times 4$	1. 5	65	DN125	DN40	DN65	3200	2000	3140	1580
ZXZ-N125T	625000	$1.1\times4$	$16000 \times 4$	1. 5	65	DN125	DN40	DN65	3200	2000	3140	1750
ZXZ-N150T	750000	$1.1\times6$	$16000 \times 6$	2.2	120	DN150	DN40	DN65	4200	2000	3150	2045
ZXZ-N180T	900000	$1.1\times6$	$16000 \times 6$	2. 2	120	DN150	DN40	DN65	4200	2000	3150	2150
ZXZ-N200T	1000000	$1.1\times6$	$16000 \times 6$	4	170	DN200	DN40	DN65	4200	2000	3150	2520
ZXZ-N250T	1250000	$5.5\times2$	$75000 \times 2$	4	170	DN200	DN40	DN65	5100	2300	4380	3080
ZXZ-N300T	1500000	$7.5\times2$	$100000 \times 2$	<b>5.</b> 5	233	DN250	DN40	DN65	5100	2300	4380	4050
ZXZ-N400T	2000000	11×2	$125000 \times 2$	7. 5	285	DN250	DN40	DN65	5100	2300	4380	5700
ZXZ-N500T	2500000	$7.5\times3$	100000×3	7. 5	285	DN300	DN40	DN65	6700	2500	4980	6500

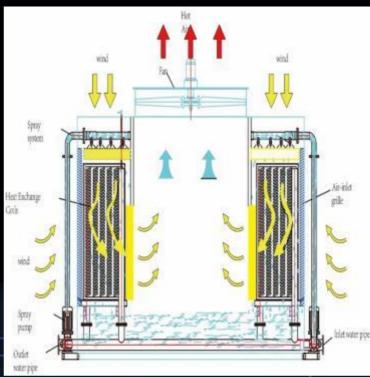
The data sheet is base on wet-bulb temperature  $28^{\circ}C$  ( $82.4^{\circ}F$ ), and the temperature drop is  $5^{\circ}C$  ( $41^{\circ}F$ ).

**ZXZ-H** series closed cooling tower

#### Structure



#### Working Principle



During the operation of this series of cooling towers, the wind enters from the inlet grilles on both sides of the bottom of the tower and traverses horizontally through the cooling coils. Sprinkler system above the cooling coil, spray water from top to bottom contact with the cooling coil.

**ZXZ-H** series closed cooling tower

#### **Product parameters**

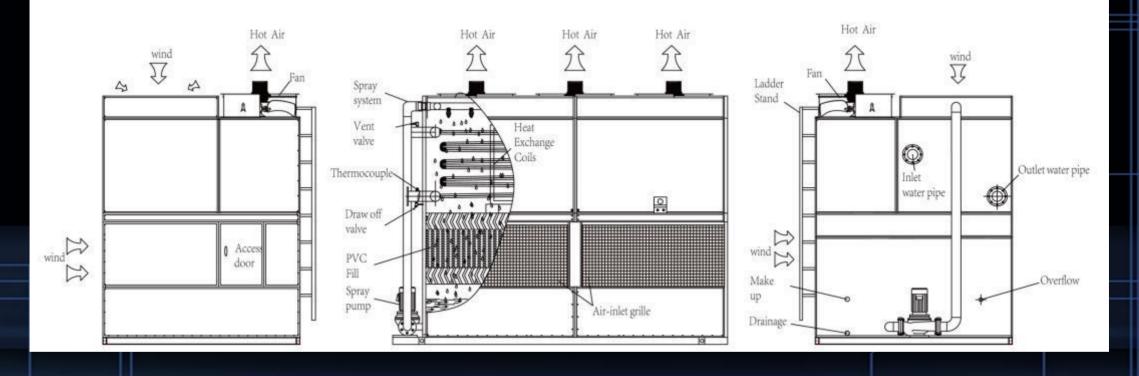
Model No.	Capacity (kcal/h)	Fan		Spray Pump		Connecting Pipe(mm)			Overall Dimensions(mm)			Net
		Power	Air Volumn	Power	Flow Rate	Inlet/	Make	Drainage	L	W	Н	Weight
		(KM)	$(m^3/h)$	(KW)	$(m^3/h)$	Outlet	Up					(kg)
ZXZ-H50T	250000	4	80000	1.1	45	DN80	DN20	DN40	2940	2000	3350	1050
ZXZ-H100T	500000	5. 5	90000	1.5	65	DN125	DN40	DN65	3800	2350	3520	1450
ZXZ-H150T	750000	7.5	100000	2.2	120	DN150	DN40	DN65	4270	2350	3590	1800

The data sheet is base on wet-bulb temperature 28°C (82.4°F), and the temperature drop is 5°C (41°F).

ZXZ-X series closed cooling tower

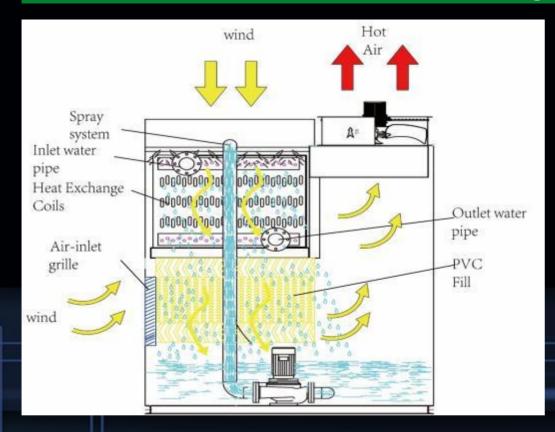
#### Structure

#### Mixflow Type



#### **ZXZ-X** series closed cooling tower

#### **Working Principle**



The top of the cooling tower in this series is a fan on one side and an air inlet on one side. During operation, the wind enters from the inlet grille on the side of the tower on the one hand and traverses the cooling coil laterally. Also from the top of the air inlet into the top-down through the cooling coil.

#### ZXZ-X series closed cooling tower

#### **Product parameters**

Model No.	Capacity (kcal/h)	Fan		Spray Pump		Connecting Pipe(mm)			0vera1	Net		
		I Power	Air Volumn	Power	Flow Rate	Inlet/ Ma	Make	Drainage	L	W	Н	Weight
		(KW)	$(m^3/h)$	(KW)	$(m^3/h)$	Outlet	Up					(kg)
ZXZ-X40G	200000	$1.1\times2$	16800×2	1. 1	45	DN80	DN20	DN40	2750	1650	2410	1200
ZXZ-X60G	300000	$1.1\times3$	16800×3	1. 1	45	DN100	DN20	DN40	3300	1970	2750	1800
ZXZ-X80G	400000	$1.5\times3$	22000×3	1.5	65	DN100	DN40	DN65	3600	2340	2780	2100
ZXZ-X100G	500000	$1.5\times3$	22000×3	1.5	65	DN100	DN40	DN65	3600	2340	2780	2300

The data sheet is base on wet-bulb temperature  $28^{\circ}C$  ( $82.4^{\circ}F$ ), and the temperature drop is  $5^{\circ}C$  ( $41^{\circ}F$ ).

#### **Application Area**

Induction heating and metal melting furnace equipment, such as: high and medium frequency quenching equipment, medium frequency power supply and electric furnace, induction heating furnace, holding furnace and other cooling. Chemical industry various reactors, condenser cooling water circulation.

Cooling of large motors, diesel engines, rectifiers, welding equipment, hydraulic stations and continuous casting equipment.

Metal die casting molds, injection molds and other large molds are cooled.

Cooling of industrial solutions, such as quenching baths, plating baths, etc.

Printing presses, large air compressors, central air conditioning cooling systems, frozen series, injection molding, tanning, foaming, power generation, steam turbines, aluminum processing, industrial water cooling and other fields.

#### **Projects**





**Projects** 





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