

# SINRO®

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GuangZhou Sinro (FoGang) Air-conditioning and Cooling equipment Co., Ltd

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## Cooling Tower



# ENTERPRISE PROFILE



## Sinro Group Base

Guangzhou Sinro (Fogang) Air-conditioning and cooling equipment Co., LTD was established in 1997 with its registered capital of RMB 16 million. It is a joint venture which specializes in air-conditioning unit, fan coil unit, cooling tower and ventilation equipment. It owns 40,000 square meters modern factory and thermal performance testing centre. Annual yield capacity can reach RMB 200 million.

Sinro has the perfect capability in product's research and design according to ISO9001 Quality Management System.

With rich experience in air-conditioning and cooling tower, Sinro has designed 5 series cooling towers which are famous of high efficiency of heat-exchange, low noise, low drift loss, stable operation and so on. Especially, CEF series intelligent stainless steel square type cooling towers have received the consistent recognition of professional customers.

Sinro provides excellent service for customer when developing market. It has set up branch offices in more than 30 cities in China including the service company and equipment warehouse in Beijing and Guangzhou. A professional service team is trained to provide the excellent before sale service and after sale service for our customers.

So far, Sinro series cooling tower are widely used in factory, commercial building, high-class residential area, supermarket and government building. Sinro's high quality products and excellent service are gained consistent recognition. Creating excellent products with advanced air-conditioning technology is Sinro's constant effort and developing direction.



# ENTERPRISE HONORS



ISO9001 Quality Management System Certificate



CTI Membership Certificate



Technical Patent Certificate In Cooling Tower



performance Testing of Cooling Tower Certificate



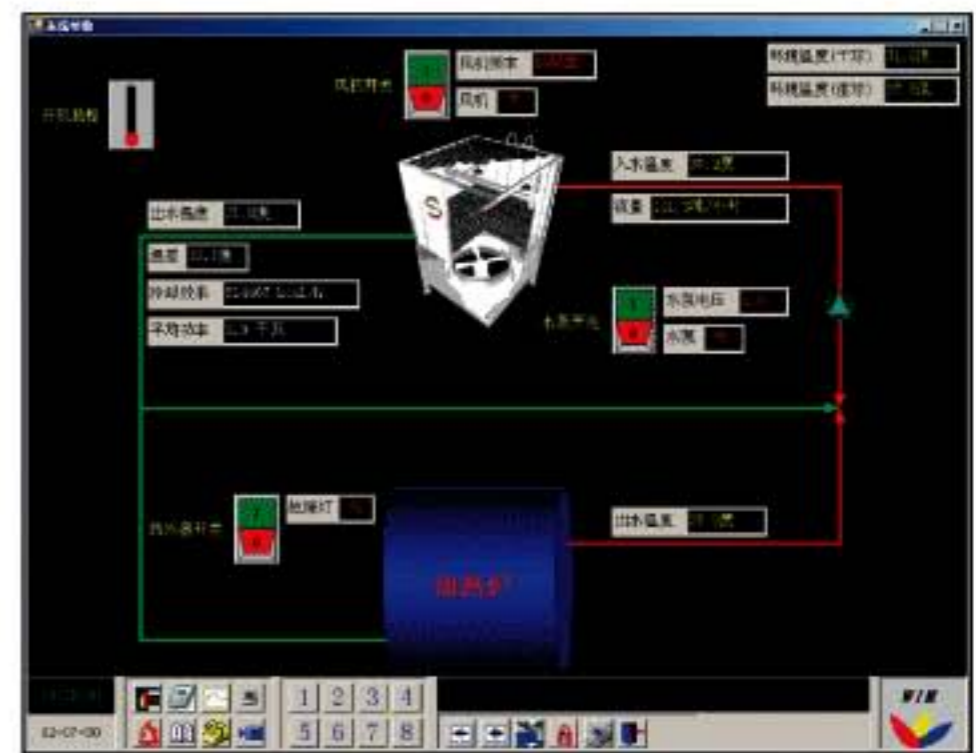
Certificate Of Emphasis Fresh-Product In Guangdong Province



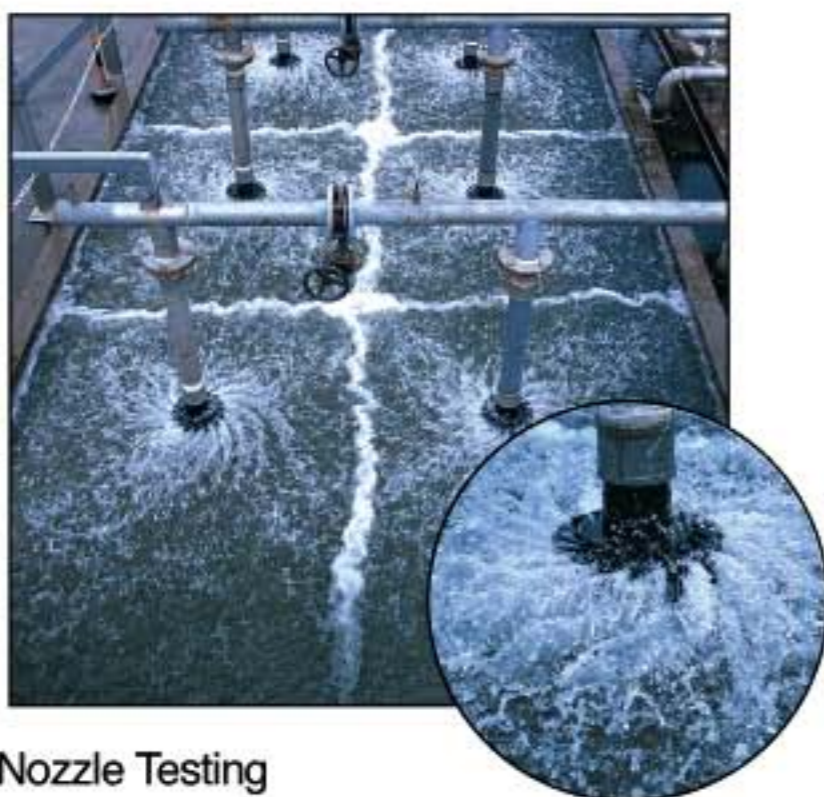
# TESTING CENTRE INTRODUCTION

In order to innovate the technology of cooling tower and control the quality of parts, Sinro has set up a modern cooling tower testing centre. The testing centre introduces a large number of modern testing equipments and automatic control system. It offers a basic function for the technology of cooling tower.

The testing centre can provide all kind of cooling tower performance data: testing of thermal performance, thermal recycle, operating noise, system date, nozzle, filler sheet, drift eliminator, fan and so on.



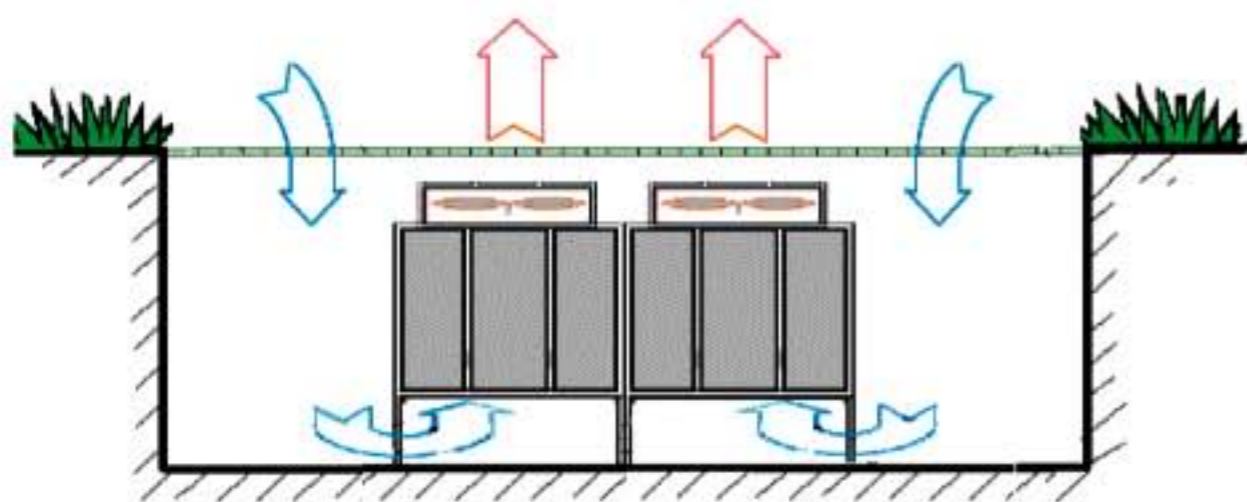
Intelligent Thermal Performance Testing Platform



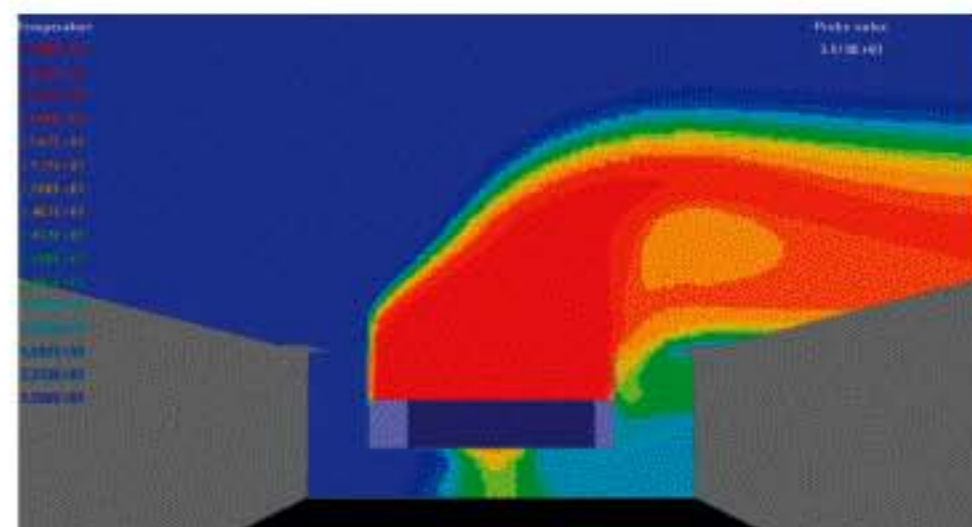
Nozzle Testing



Cooling Tower Testing Soft



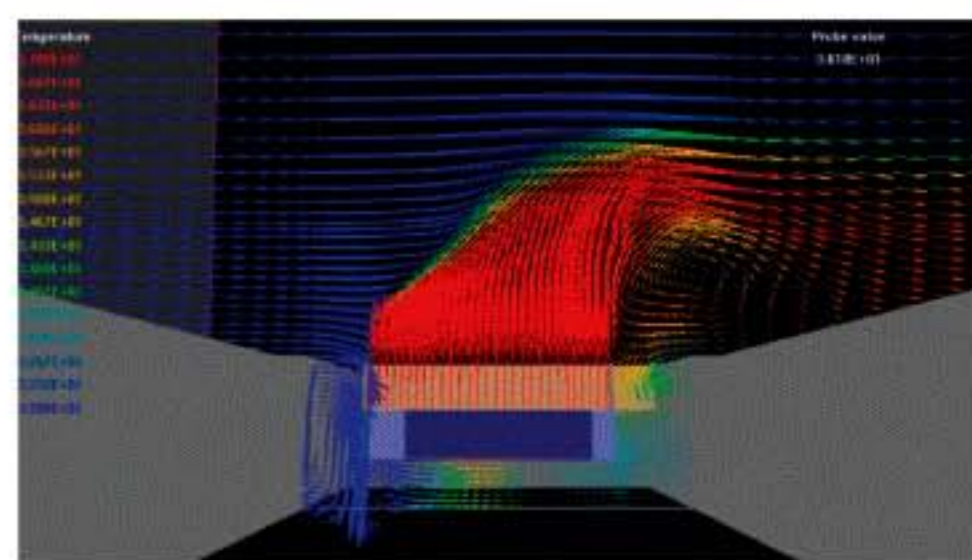
Air Flow Illustration



Centre Vertical Section Velocity Vector Graph



Thermal Recycle Analog Testing



Centre Vertical Section Temperature Vector Graph



Axial Fan Testing Report



Axial Fan Static Balance Testing

# CHD Series Stainless Steel Cross Flow Square Type Cooling Tower

## Product Profile

With rich experience in cooling tower design, manufacture, usage and maintain, Sinro has produced CHD series stainless steel cross square type cooling tower with advanced technology in thermal exchange.

CHD series cooling tower are dual air inlets. The framework structure can neatly select several units to assemble according to installation site. SRTH-F19 series fill sheets are 3 in 1 cell mode, which has the functions of inducing flow and thermal exchange. Drift eliminator can effectively prevent contaminant from going into the water system and reduce the noise. The suspended fill sheet is a good hydrophilic material and has the features of high efficiency of thermal exchange and less drift loss. A maintenance access installed in tower is easy to clean and maintain.

In general, there are many characters in Sinro SC series cooling tower, such as good appearance, stable structure, low noise, high efficiency of thermal exchange, long operational life, anti corrosion, saving water and so on.

## Product Characteristics

### ○ Framework

Framework is module mode manufactured by imported high quality stainless steel by automatic. It can neatly select single unit or assembly several units together according to installation site. The cooling tower can resist 150KGF/M2 wind pressure, twelve levels of typhoons or eight magnitude of earthquakes.

### ○ Casing Panel

Produced by imported high quality 304# stainless steel. The complex panel is made of "complex sandwich" steel and colophony which can improve the tension of the panel and efficiency of shock resistance and reduce the noise.

### ○ Water Basin

Produced by imported high quality 304# stainless steel. The basin with FRP casing and huge volume and high water level can avoid the water being exhausted.

### ○ SRTH-19 Fill Sheet and Drift Eliminator

SRTH-19 series suspended fill sheet, a patented product of Sinro is 3 in 1 cell mode, which has the functions of inducing flow, thermal exchange and drift eliminator. It can effectively prevent contaminant from going into the water system. Special wave of the fill's surface makes a good hydrophilic and improves the thermal exchange efficiency. Cross mode drift eliminator strictly control the drift loss to the level less than 0.001%.

The fill sheet uses high quality PVC with the performance of fire resistance and anti-UV material as raw material and is vacuum formed. Its oxygen index is 33, which reaches B1 level of fire resistance standard in China. The eliminator is capable of working in hot environment for a long time out of doors with the features of fire resistance, ageing resistance, maintaining the shape and keeping clean.

### ○ YX-18 Nozzle

The YX-18 series weight mode special nozzle for cross flow cooling tower is the patented product of Sinro Group, which is made by high quality ABS plastic. It can resist high temperature, corrosion and clogging. The cooling water can drop to cinquefoil structure for its weight and water pressure. The nozzle can distribute the cooling water to each corner of the fill uniformly.

### ○ Axial Fan

The XRT series aluminum axial fan with wide blade and low rotating speed is made by high quality aluminum. Surface layer is dealt with anti-corrosive coating, which meets GB/T9286-88 standard, and the fan is performed with ZBJ72042-90 balance standard calibration. The fan blades connected by stainless steel U shape part is adjustable type.

### ○ Drive Device

Fully Sealed and waterproof casing are used in belt drive unit. Anti-corrosive drive axis is galvanized. The drive unit operates stably with low noise and is waterproof.

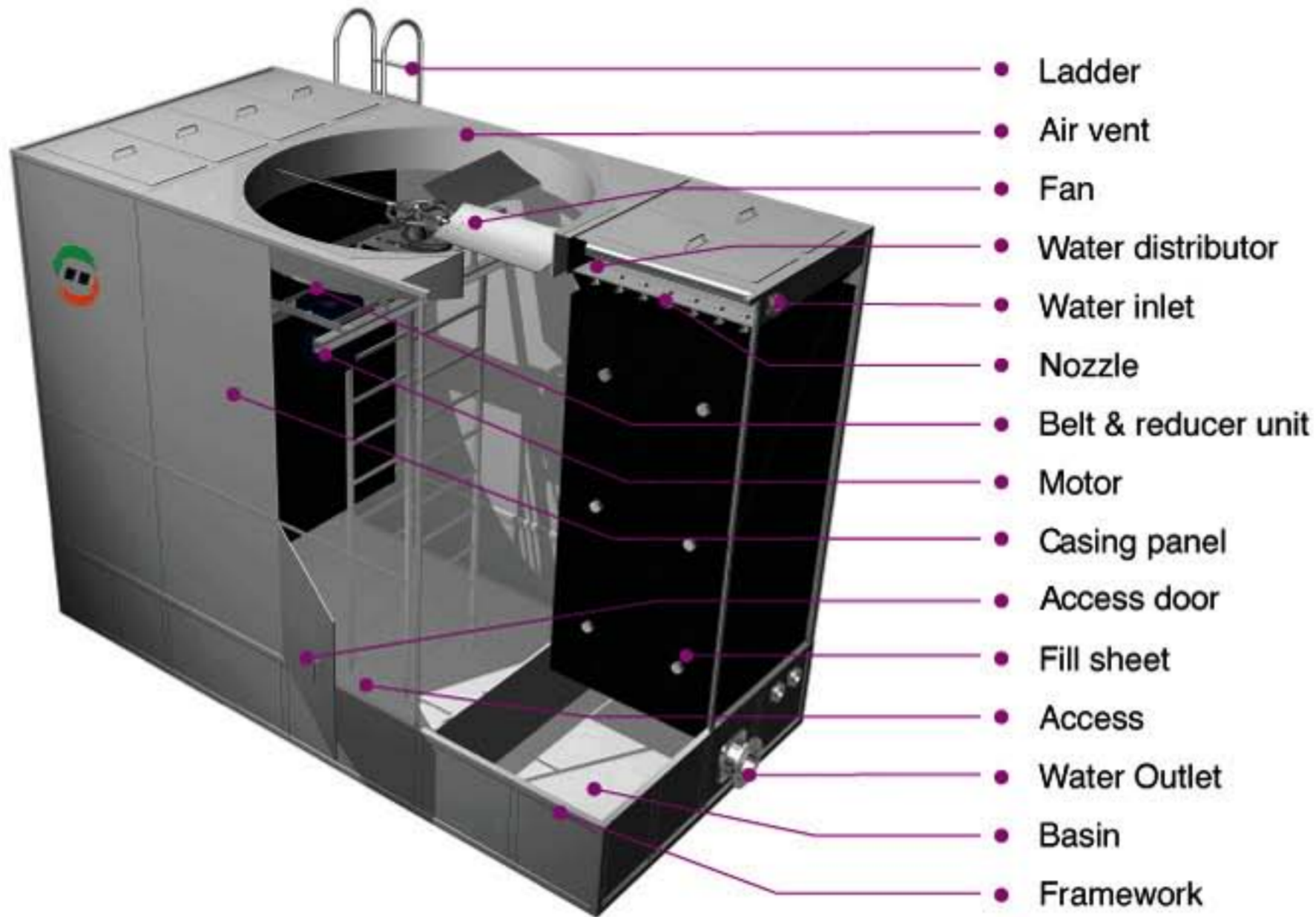
### ○ Motor

Special sealed motor for cooling tower. The motor's enclosure rating is IP54. It can operate continuously in the moist or hot environment for a long time. It is of high efficiency, reliable function, low noise and a long operational life.

### ○ Fan Stack

Special design for diffusing air outlet. It can eliminate the minus-pressure area of fan stack and make airflow smoothly. It also improves thermal exchange efficiency and reduces the airflow resistance, noise and power loss.

## CHD Series Stainless Steel Cross Flow Square Type Cooling Tower Structure Display



## CHD Series Stainless Steel Cross Flow Square Type Cooling Tower Material Sheet

MODEL	CHD-XXX	CHD-XXX-S	CHD-XXX-SS
Framework	304# Stainless steel		316# Stainless steel
Bolts & Nuts	304# Stainless steel		316# Stainless steel
Ladder	304# Stainless steel		316# Stainless steel
Inner structure	Hot dipping galvanized steel	304# Stainless steel	316# Stainless steel
Motor support	Hot dipping galvanized steel		
Nozzle	High quality ABS		
Fill Sheet	High quality improved PVC		
Drift eliminator	High quality improved PVC		
Casing Panel	304# stainless steel composite panel		316# Stainless steel composite Panel
Air vent	304# Stainless steel		316# Stainless steel
Basin	High intensity FRP		
Water distributor	High intensity FRP		
Fan	High quality aluminum alloy		
water in/out flange	Cast Iron		
sound-deadening pad (especial for UL model )	High intensity FRP		

## CHD Series Stainless Steel Cross Flow Square Type Cooling Tower Specifications

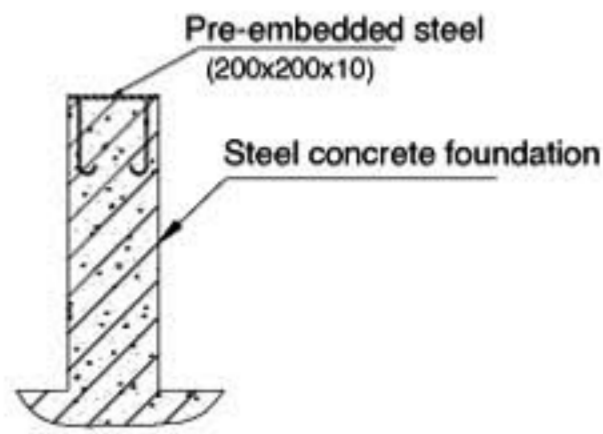
specification Model	Item	water volume (m <sup>3</sup> /h)	cooling powerx10 <sup>3</sup> (kcal/h)	motor power (KW)	fan diameter (Ø mm)	tower Header (mH <sub>2</sub> O)	Water makeup volume (m <sup>3</sup> /h)	outline size(mm)			weight(kg)	
								length	width	height	net weight	operation weight
CHD-100		100	500	2.2	1768	3.5	1.1	3470	2060	3325	1208	2408
CHD-125		125	625	3	1768	3.5	1.37	3470	2060	3325	1307	2840
CHD-150		150	750	3	2168	3.6	1.65	3870	2460	3325	1521	3221
CHD-175		175	875	4	2168	3.6	1.93	3870	2460	3325	1740	3671
CHD-200		200	1000	4	2560	3.8	2.2	4270	2860	3325	1938	4208
CHD-250		250	1250	5.5	2954	4	2.75	4670	3260	3990	2622	5662
CHD-300		300	1500	7.5	2954	4	3.3	5180	3660	3990	2930	6030
CHD-350		350	1850	11	3340	4.4	4.07	5580	3660	4475	2843	7848
CHD-400		400	2000	11	3744	4.9	4.4	5980	4060	4475	4353	8633
CHD-450		450	2250	15	3744	4.9	4.95	5980	4060	4475	4584	9484
CHD-500		500	2500	15	4140	5	5.5	6380	4460	1960	5061	10251
CHD-600		600	3000	18.5	4140	5.3	6.6	7000	4460	4960	5633	10983
CHD-700		700	3500	18.5	4540	5.3	7.7	7400	4860	4960	6007	12637
CHD-800		800	4000	30	4540	5.8	8.8	7400	5360	5600	6507	13137

## CHD Series Stainless Steel Cross Flow Square Type Cooling Tower Dimension

specification Model	Item	connection size(Ø)(mm)								Foundation(mm)				International P.N.	
		Water in	Water out	Drain	make-up	W1	W2	W3	W4	W5	L1	L2	N		h
CHD-100		80x2	125	40	40	2000	1000	/	/	/	3740	1070	2	600	BHD-100
CHD-125		100x2	150	40	40	2000	1000	/	/	/	4140	870	3	600	BHD-125
CHD-150		100x2	150	40	40	2400	800	800	/	/	4140	870	3	600	BHD-150
CHD-175		125x2	200	40	40	2400	800	800	/	/	4540	1070	3	600	BHD-175
CHD-200		125x2	200	40	40	2800	800	1000	/	/	4540	1070	3	600	BHD-200
CHD-225		125x2	200	40	40	2800	800	1000	/	/	4940	870	4	600	BHD-225
CHD-250		125x2	200	50	40	3200	1000	1100	/	/	4940	870	4	1000	BHD-250
CHD-300		150x2	200	50	40	3200	1000	1100	/	/	5340	1070	4	1000	BHD-300
CHD-330		150x2	200x2	50	50	3600	900	900	900	/	5340	1070	4	1000	BHD-330
CHD-370		125x4	200x2	50	50	3600	900	900	900	/	5740	870	5	1000	BHD-370
CHD-400		125x4	200x2	50	50	4000	1000	1000	1000	/	5740	870	5	1000	BHD-400
CHD-450		125x4	200x2	50	50	4000	1000	1000	1000	/	6140	1070	5	1000	BHD-450
CHD-500		125x4	200x2	50	50	4400	1100	1100	1100	/	6540	870	6	1000	BHD-500
CHD-600		150x4	200x2	50	50	4400	1100	1100	1100	/	6940	1070	6	1000	BHD-600
CHD-700		150x4	200x2	50	50	4800	1000	1800	1000	1000	7340	870	7	1000	BHD-700
CHD-800		200x4	250x2	80	50	5300	1325	1325	1325	1325	7340	870	7	1000	BHD-800

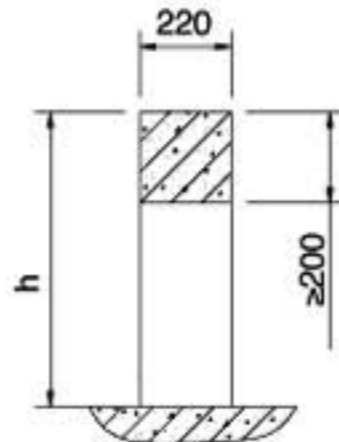


# CHD Series Stainless Steel Cross Flow Square Type Cooling Tower Foundation Sketch

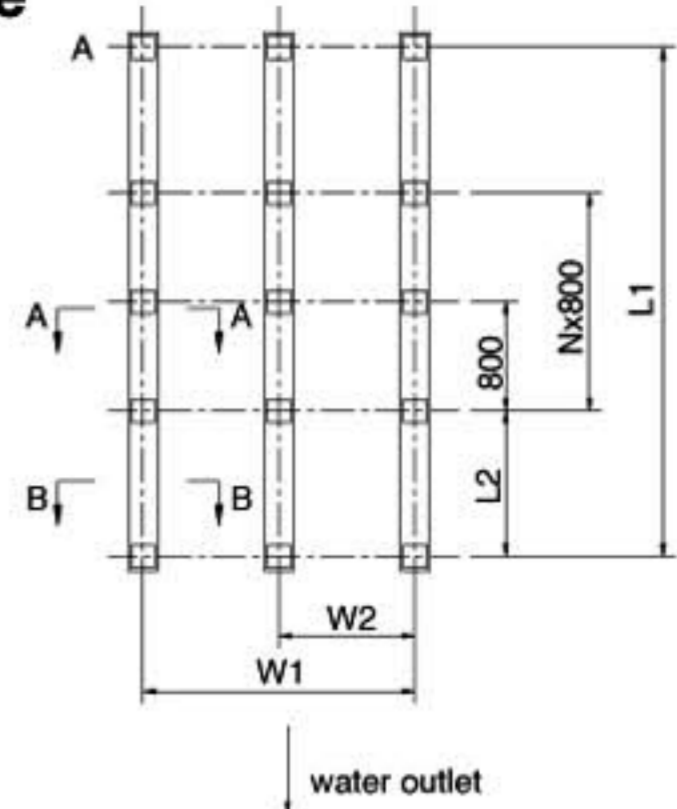


A-A Detail

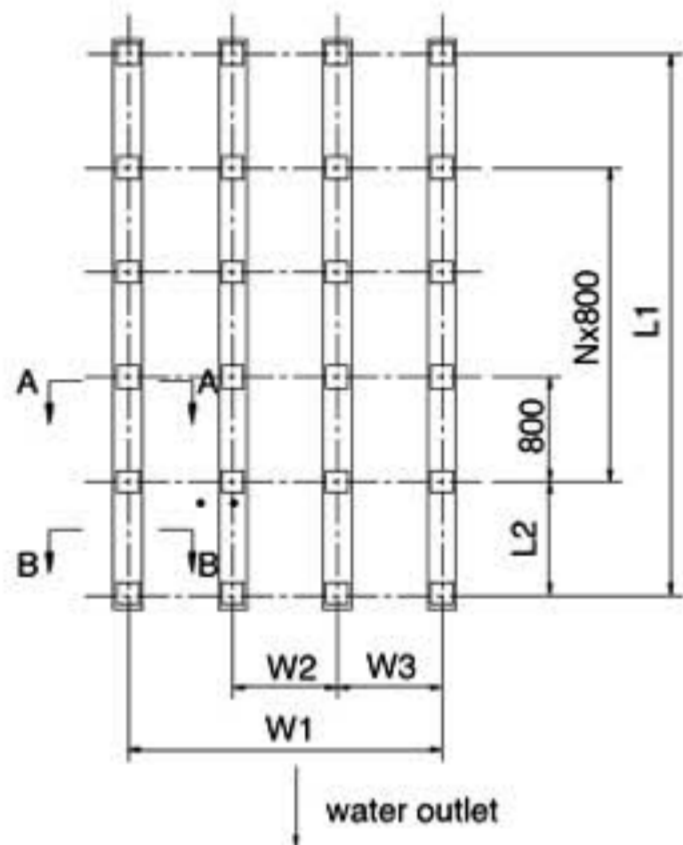
The height of foundation is net measurement, excluding any height of the structure layer



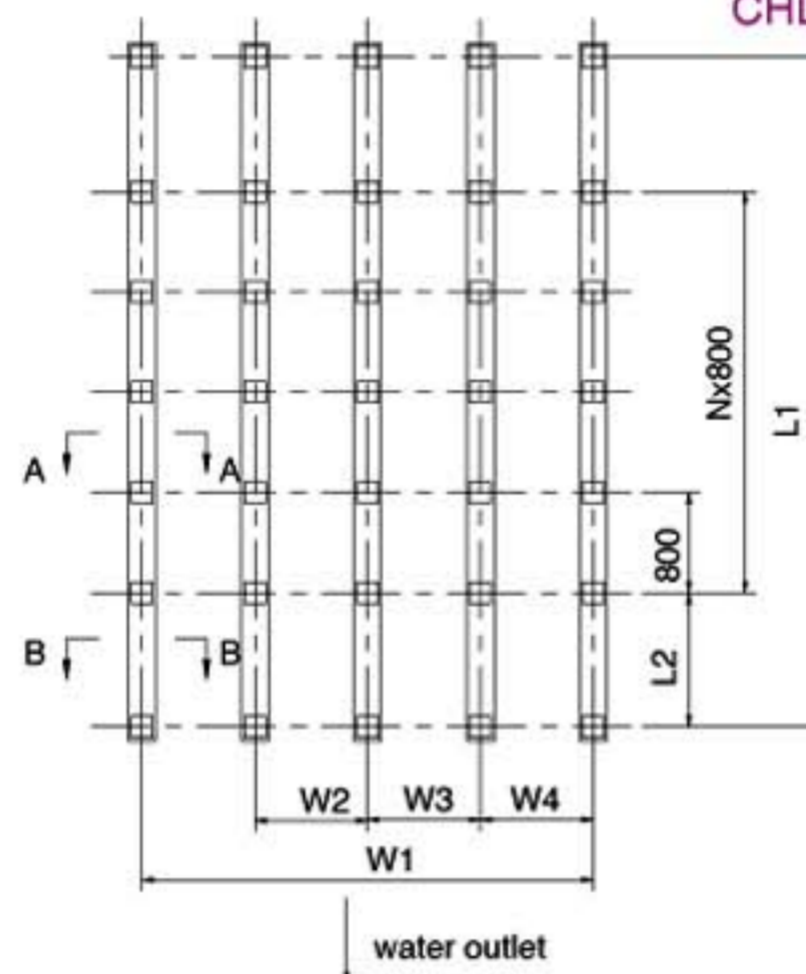
B-B Detail



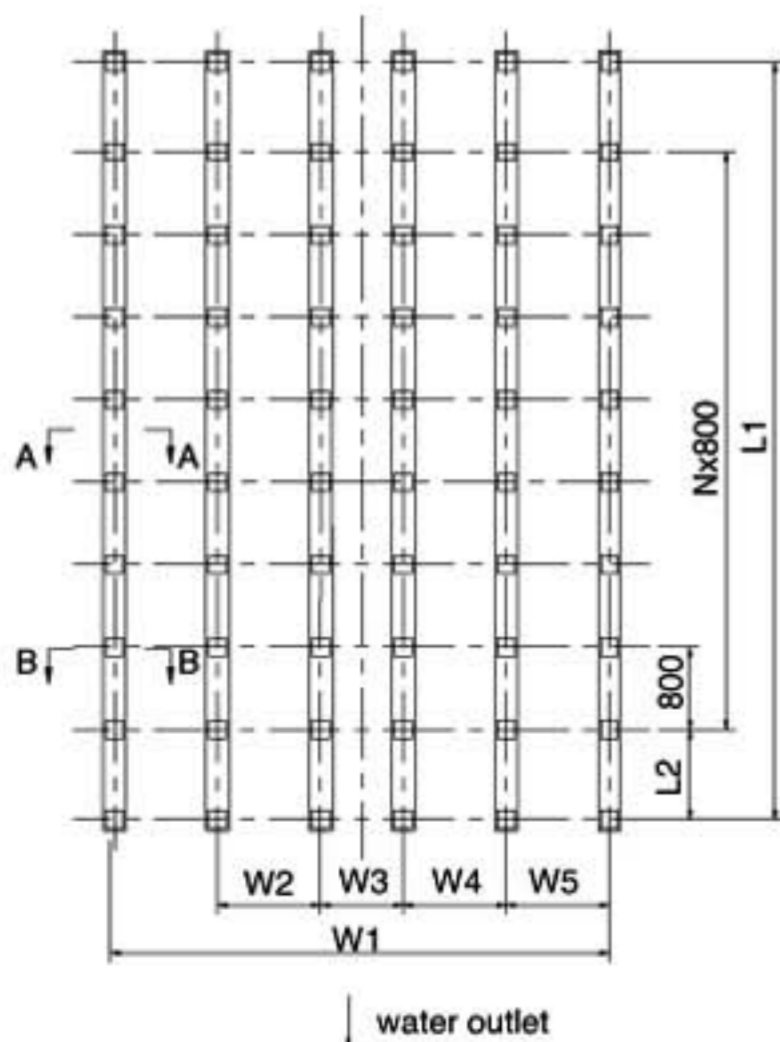
CHD-100~125



CHD-150~300

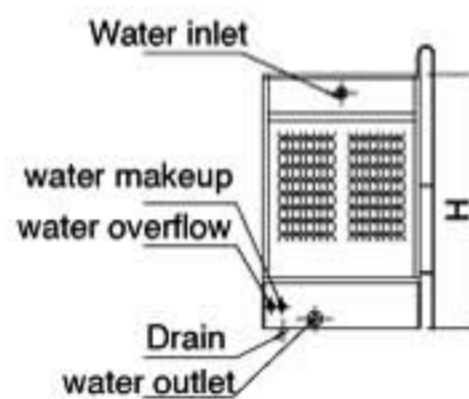


CHD-330~600

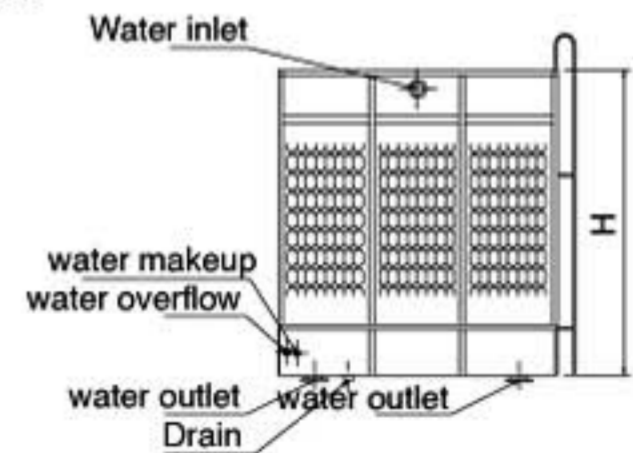


CHD-700

# CHD Series Stainless Steel Cross Flow Square Type Cooling Tower Connection Sketch



CHD-100~225



CHD-225~800

