

Model (Code): (1932) CW-5000AK / (1923) CW-5000BK / CW-5000DK

Name:

CW-5000AK Water Chiller for a Single 5KW Spindle or Welding Equipment Cooling, AC 1P 220V, 50Hz

CW-5000BK Water Chiller for a Single 5KW Spindle or Welding Equipment Cooling, AC 1P 220V, 60Hz

CW-5000DK Water Chiller for a Single 5KW Spindle or Welding Equipment Cooling, AC 1P 110V, 60Hz



Overview	Specifications	Packing list	Warranty
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It is designed for cooling a single 5KW spindle of the CNC engraving machine.
Cooling capacity is 800W, Radiating capacity: 50W / °C
Have design patent Certificate, CE Certificate
This water chiller has been sold largely to Europe, South America, Asia and other markets.
Economic cooling equipment, easy to install and operate, compact and easily movable

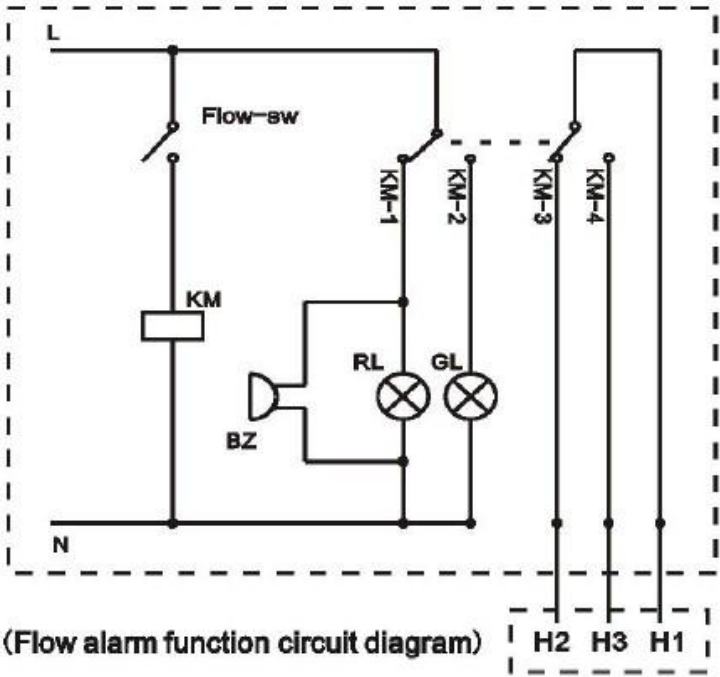
Features

- ◆ It is designed for cooling a single 5KW spindle of the CNC engraving machine.
- ◆ You can choose different model according to local voltage and frequency.
- ◆ Small thermolysis water cooler, energy saving, long working life and simple operation
- ◆ With completed water flow and over high temperature alarm functions
- ◆ It can control the water temperature, precision is $\pm 0.1^{\circ}\text{C}$, which provide stable working conditions for laser devices.
- ◆ Cool Capacity is 50W / °C.
- ◆ This series of water chillers adopt intelligent controller, which need not adjust the control parameters under normal circumstances, it will automatically adjust control parameters according to room temperature changes, to meet the cooling requirement.
- ◆ CW-5000 water chiller has unique low flow alarm protection function, which ensures the cooling water cycle working safely.
- ◆ Specific disconnection alarm securing protection.
- ◆ Enclosed water tanks, water used for a long time.

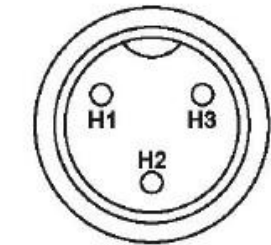
- ◆ Equipped with alarm output port, can quickly protect sensitive components.
- ◆ High cost performance, low failure rate.

Flow alarm and output ports

In order to guarantee the equipment will not be damaged while cooling water circulation is out of control, CW-5000series chillers possesses an unique low flow alarm protection.



(Flow alarm function circuit diagram)



(Output ports diagram)

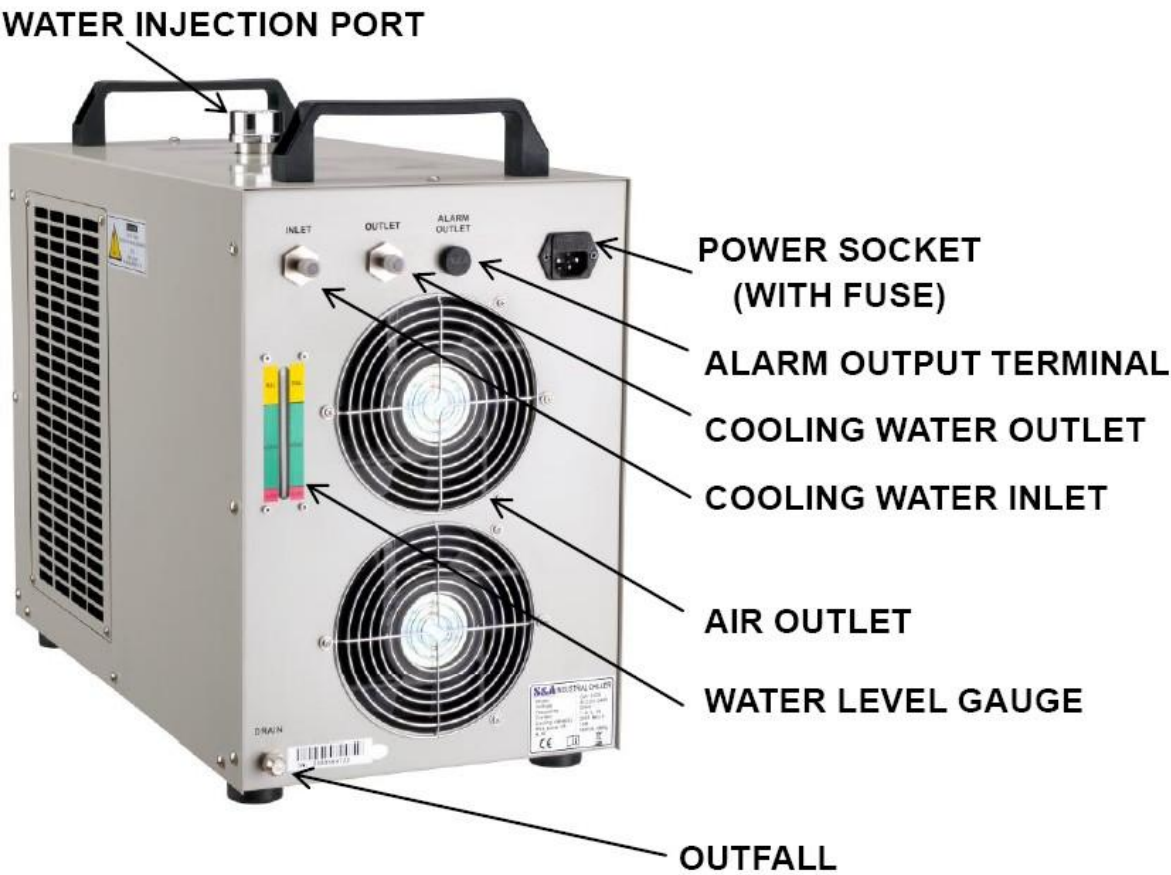
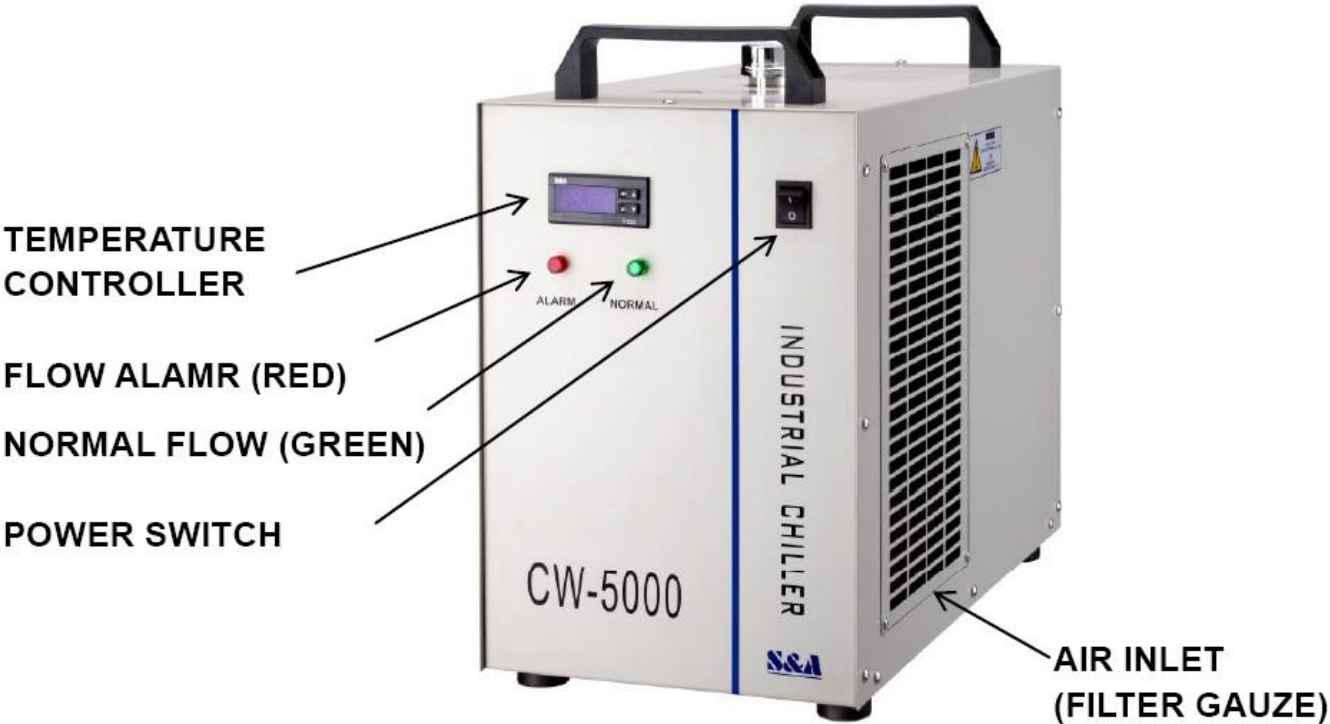
(Alarm output ports)

The cooling water circulation loop alarm causes and the work of the state table

	Normal Flow Indicator	Flow Alarm Indicator	Buzzer	Output Ports Hi, H2	Output Ports H1, H3
Circulating pump works properly	ON	OFF	NOT RING	DISCONNECTION	BREAKOVER
Blocked cooling water circulation loop	OFF	ON	RING	BREAKOVER	DISCONNECTION
Alarm of water shortage	OFF	ON	RING	BREAKOVER	DISCONNECTION
Faulted circulating pump	OFF	ON	RING	BREAKOVER	DISCONNECTION
Power interruption	/	/	/	BREAKOVER	DISCONNECTION

Note: The flow alarm is connected to the normally open relay and normally closed relay contacts, requiring operating current less than 5A, working voltage less than 300V.

Details





Under normal circumstance, the new intelligent temperature controller does not need to adjust the controlling parameters. It will self-adjust controlling parameters according to room temperature, guaranteeing to meet cooling requirements for machines.

Usage



Industrial cooling machine's installation is very simple, the new machine for the first time using, you can install it as following steps.

A. Open the package to check if the machine is intact and all the necessary accessories are completed.

B. Open the injection port to feed cooling water.

Observing the water level gauge and adding water slowly, be careful not to have the water overflowed! For the cooling of carbon steel equipment, the water should be added an appropriate amount of anti - corrosion agentia. Working in cold north area, it's better to use noncorrosive antifreeze fluid.

C. According to system conditions, please connect the water inlet and outlet pipe well.

D. Plug in power, turn on the power switch. (Do not start up without water in the water tank!)

(1) Power switch turned on, the circulation pump of the chiller starts working. The first time of operating may cause more bubbles in the pipe leading to a flow alarming occasionally, but running for a few minutes later, it will go back to normal.

(2) After the first boot, you must immediately check whether the water pipe leaks.

(3) Power switched on, if the water temperature is below the set figure, it is normal that fans and other components of the machine do not work. The temperature controller will automatically control the working conditions of the compressor,

magnetic valve, fans and other parts based on the set controlling parameters.

(4) As it takes a longer time to start the compressor and other components, according to different conditions, the time is range from seconds to minutes, so do not turn off the power and again on frequently.

E. Check the water level in the water tank.

The first startup of the new chiller empties the air in the water pipe, leading a slight water level decline, but in order to keep the water level in the green area, it's allowed to add adequate water again. Please observe and record the current water level, and inspect it again after the chiller running for a period of time, if the water level drops obviously, please re-inspect the water pipeline leakage.

F. Adjust parameters of temperature controller.

CW-5000 series use an intelligent thermostat. Normally users do not need to adjust it. If it is really necessary, please refer to "Operating status and parameters adjustment."

Maintenance

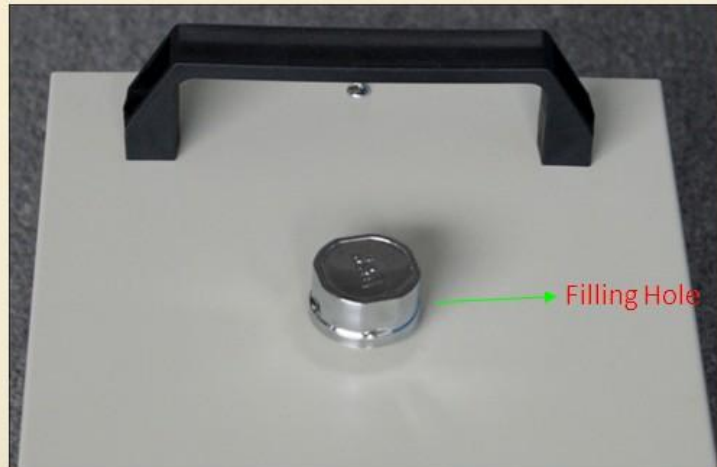
Cooling machine used in long term, you should open the machine and clean the dust in order to ensure good heat dissipation.

You can use non – corrosive antifreeze if you are in the northern cold regions.

Method of exchanging water in the water tank and the exchanging frequency

Method of exchanging water in the water tank

Drain the waste water out of the water tank through the drain outlet and fill the clean water into the tank through the filling hole.



Exchanging Frequency

The purified water should be exchanged once a month and the running water should be exchange twice a month.

The quality of the circulating water will directly influence the service life of the laser tube. It is recommended to use purified water.

Introduction to CW5000 Water Tank

One of the differences between the CW5000 water tank and the CW3000 tank lies in that the CW5000 water tank can keep the water at a uniform temperature. Its cooling function can keep the temperature at a certain value, which can be adjusted manually. All the parameters related to the water tank have been set as the correct value by our company before delivery. The user may refer to the parameter instruction manual of the water tank for detailed description on the parameters. It is strongly suggested that the user should not change the parameters without authorization. Our company accepts no responsibility for any insolvable problems caused by the user's unauthorized changing of parameters.



Cautions

1. Please ensure that the power supply and electrical outlet are in good contact and the earth wire must be firmly grounded! Although the average operating current of the chiller is small, but the instantaneous operating current could be up to 6 ~ 10amps sometimes (The instantaneous operating current of models of AC110V power supply are possible to be up to 10 ~ 15amps).
2. Please make sure there is a stable and normal voltage for the working chiller! As the refrigeration compressor is more sensitive to the power supply and voltage, so the operating voltage of our standard product is of 200 ~ 250V (110V model is of 100 ~ 130V). If you do need a wider operating voltage range, customization is available for us.
3. To protect the pump, it's strictly forbidden to run the chiller without having water in the storage water tank! The new machine is packed after draining whole water in the tank, so please make sure the tank has water inside before machine starting, otherwise it's easily to have the pump damaged. When the water level is below the green (NORMAL) range of the water level gauge, the cooling capacity of our chiller will go down slightly. Hence please ensure the water level is within the green (NORMAL) range. To drain through circulating pump is strictly prohibited!
4. Please be sure that the air inlet and air outlet are in good ventilation! There must be at least 30cm from obstructions to the air outlet which is in the back of the cooler, and should leave at least 8cm between obstructions and the side air inlet.
5. The filter screen must be regularly cleaned! It's essential to unpick and wash the dust gauze, or the serious blockage will cause breakdown to the chiller.
6. Please pay attention to the effect of the condensate water! With greater ambient humidity, when the water temperature is lower than the ambient temperature, the condensate water will generate on the surface of water circular pipes and the cooled components. If above circumstance appears, it is recommended to set a higher water temperature or keep pipes and cooled parts warm.

Overview	Specifications	Packing list	Warranty
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Specifications

Model	CW-5000AK	CW-5000BK	CW-5000DK
Power Supply	AC 1P 220V, 50Hz	AC 1P 220V, 60Hz	AC 1P 110V, 60Hz
Current	1 – 4.8A	1 – 4.8A	3.5 – 5.6A
Compressor Power	0.295KW	0.38KW	0.305KW
	0.4HP	0.52HP	0.41HP
Refrigerating Capacity	2361Btu / h	2999Btu / h	2866Btu / h
	0.692KW	0.879KW	0.84KW
	595Kcal / h	756Kcal / h	722Kcal / h
Refrigerant	R – 134a	R – 134a	R – 134a
Refrigerant Charge	300g	320g	280g
Precision	±0.3℃	±0.3℃	±0.3℃
Tank Capacity	6L	6L	6L
Reducer	Capillary	Capillary	Capillary
Protection	Over current protection for compressor, flow alarm, over temperature alarm	Over current protection for compressor, flow alarm, over temperature alarm	Over current protection for compressor, flow alarm, over temperature alarm
Pump Power	0.03KW	0.051KW	0.03KW
Maximum Flow	10L / min	13L / min	10L / min
Maximum Pumping Lift	10M	12M	10M
Inlet and Outlet	External Dia.: 10mm brass connector	External Dia.: 10mm brass connector	External Dia.: 10mm brass connector

Alarm function

E1	E2	E3	E4	E5
Over high room temperature	Over high water temperature	Over low water temperature	Room temperature sensor failure	Water temperature sensor failure

Remark:

When alarm occurs, the error code and the temperature will be alternately displayed.

In alarming state, the alarm sound could be suspended by pressing any button, but the alarm display remains until the alarm condition is eliminated.

Thermostat parameters list

Order	Code	Project Setting	Range	Factory Setting	Notes
1	F0	Temperature setting	F9 – F8	25	Constant temperature control effecting
2	F1	Temperature difference values	-15 - +5	-2	Intelligent control effecting
3	F2	Cooling hysteresis	0.1 – 3.0	0.8	
4	F3	Way of control	0 - 1	1	1: intelligent

					0: constant temperature
5	F4	Alarm for over high water temperature	1 - 20	10	
6	F5	Alarm for over low water temperature	1 - 20	15	
7	F6	Alarm for over high room temperature	40 - 50	45	
8	F7	Password	00 - 99	8	
9	F8	The allowed highest water temperature	F0 - 40	30	
10	F9	The allowed lowest water temperature	1 – F0	20	

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Terms & Condition of Purchase: After we receive PO from customer with stamp, we give PI for customer.



Lead Time: After receiving customer's deposit, within 2 - 4 days.

Wooden Box: There is total one carton box.

Machine Dimension	550mm x 280mm x 430mm (21.6" x 11" x 17")
Machine Weight	57.2ib (26kg)
Package	Carton box
Packing Size	720mm x 440mm x 620mm (28" x 17" x 25")
Gross Weight	68.2ib (31kg)

Packing List

Pictures	Name	Qty
	CW5000 water chiller machine	1 set
	Power cable	1 pc
	Connection hose	1 pc
	Sealing washer	2 pcs
	250V / 2A spare fuse (Mounted on the power socket interface within the insurance reserve)	1 pc

	User manual	1 pc
	Alarm signal output plug	1 pc

Caution: The appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction, children supervised not to play with the appliance!







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Comprehensive guarantee for one year except the wearing parts

24 - hour technical support by email or calling

User - friendly English manual for machine using and maintaining

Spare Parts Supports

We provide all replacement parts for all machines we sold, if you have a parts that break beyond warranty period, you could order it directly from us at reasonable prices. We would post the new parts with step by step instructions in PDF format on how to replace the parts to you.

If you want to buy any parts from us, please tell us the names or pictures of the parts.

Satisfaction Guarantee

For the items other than consumable products sold via www.Sign-in-China.com, we provide 12 months warranty after shipment. All the extra parts for equipment can be purchased from www.Sign-in-China.com. Further, for our VIP customers, the period of warranty shall be extended to 18 months.

We offer 14 days 100% satisfaction guarantee on all our machines. If you are not satisfied after receiving an item, Sign-in-China.com promises that, within 14 days after actual delivery of such an item, you are allowed to return the item to us and get complete refund, provided the returned item does not affect its subsequent re - selling and you also undertake the charge of returning delivery.

More information, please look at the document of [Training & Warranty & Service Policies](#).