

CW-3000 INDUSTRIAL CHILLER

USER MANUAL



<1> INTRODUCTION

CW-3000 Series is professional cooling machine referring to international advanced thermolysis cooling system design, suitable for small water-cooled cooling devices requested machinery.

1. Specific disconnection alarm security protection.
2. Hermetic type water tank, water is available for a long time used.
3. Real-time temperature monitoring, accurate knowledge of heating devices working condition.
4. Professional air-cooled forced radiator with strong heat dissipating capacity and difficult to be blocked up.
5. Equipped with alarm output port to protect sensitive components quickly.
6. High cost performance, low failure rate.
7. There are several options of power supply, complete in specifications.

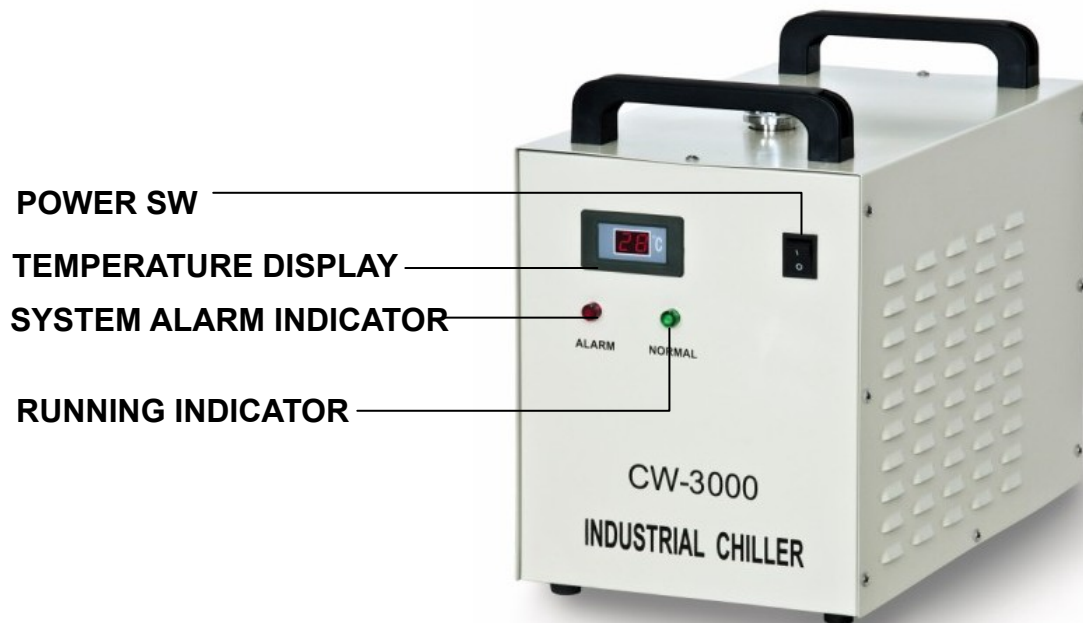
<2> CAUTION

1. It is strictly forbidden to plug and run the cooler without feeding water.
2. Cooler should be placed in a well-ventilated, dry environment place and away from heat sources. Please keep at least 30cm from obstructions to the air outlet which is in the back of the cooler, and should leave at least 10cm between obstructions and air inlets of two sides.
3. The cooling water must be drained if the cooler is out of use for long time or before being transported.
4. To protect laser tubes , the radiator fan of cooler will suspend to work when water temperature is lower (about 10℃) , and it will restart to run when water temperature rises to higher (about 20 ℃).

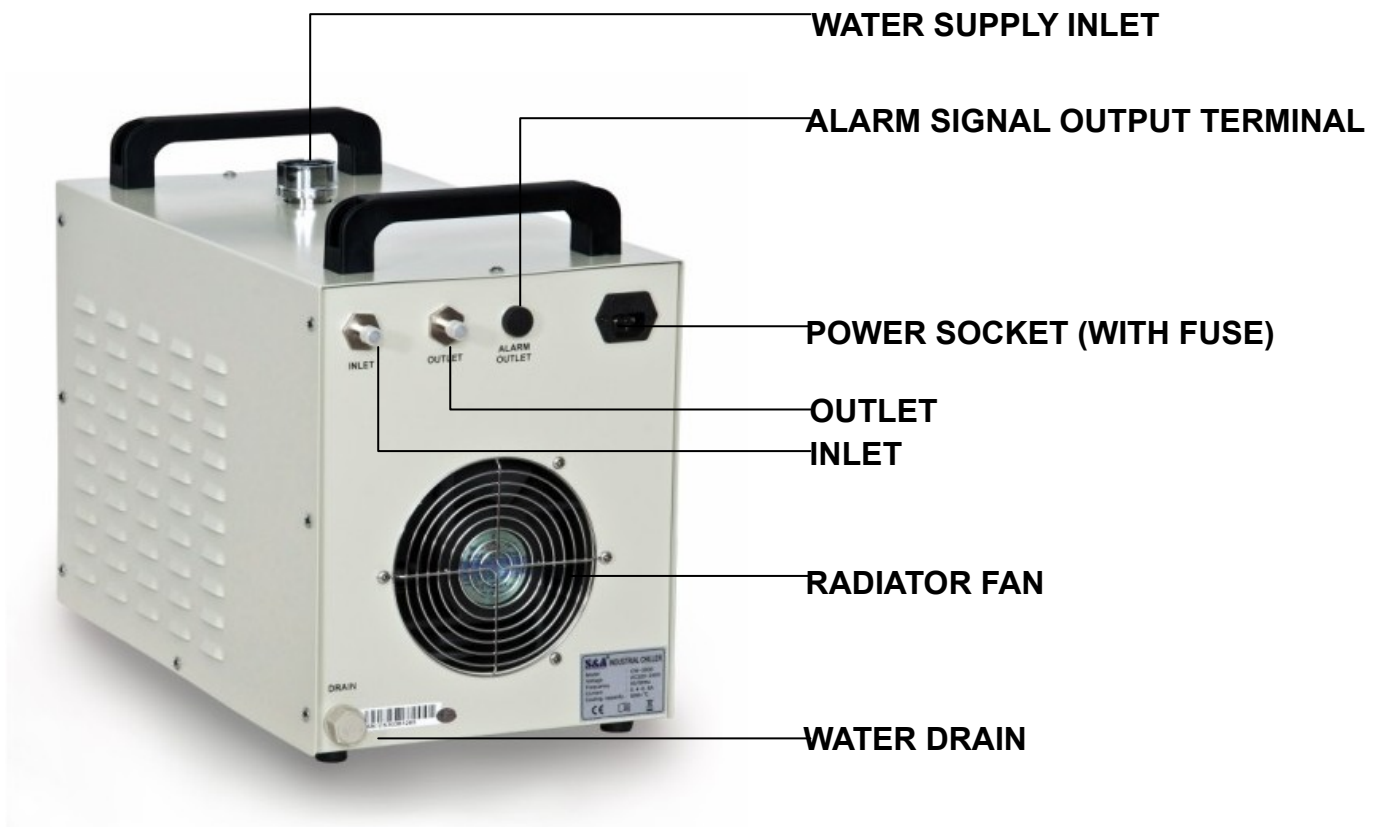
<3> Details

1. Shape and parts name

FRONT



BACK



2. The first installation

It is very simple to install this industrial cooling machine. The first time installation of the new machine can be carried out by following steps.

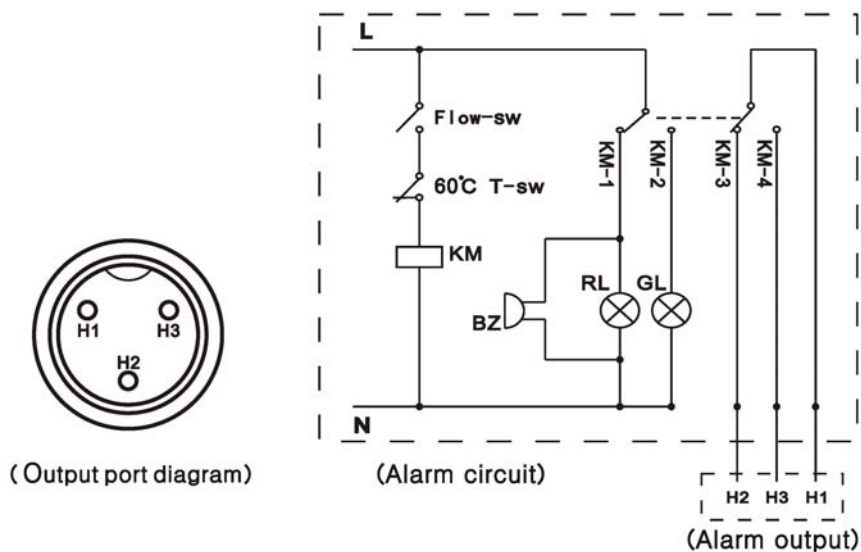
1. Open the package to check if the machine is intact and all the necessary accessories are completed.
2. Open the injection port, then add cooling water.
3. According to system conditions, connect the water inlet and outlet pipe well.
4. Plug in power, turn on the power switch. (Do not allow the water overflow)
5. Check the water level of the water tank again. (It should be 80-150cm from the surface of water to the injection port)

3. Alarm description

Causes of the cooling water circulation loop alarm and the working condition table.

Display Condition	Green light	Red light	Buzzer	out H1、 H2	out H1、 H3
Normal	On	Off	No voice	Off	On
Water stops up	Off	On	Voice	On	Off
Surpasses 60℃	Off	On	Voice	On	Off
Pump breakdown	Off	On	Voice	On	Off
Water alarm	Off	On	Voice	On	Off
Faulted circuit				On	Off
Power outage				On	Off

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



4. Maintenance

1. To ensure good heat dissipating, please open the lid to clean the dirt after the cooler used in long-term.
2. Working in cold north area, it is better to use noncorrosive antifreeze fluid.

<4> SPECIFICATIONS

Model	CW-3000AG	CW-3000DG	CW-3000AF	CW-3000DF	CW-3000AK	CW-3000DK
Voltage	AC 1P 220V	AC 1P 110V	AC 1P 220V	AC 1P 110V	AC 1P 220V	AC 1P 110V
Frequency	50/60Hz					
Current	0.45A	0.9A	0.45A	0.9A	0.5A	1.0A
Radiating capacity	50W/°C					
Tank capacity	9L					
Inlet and outlet	External Φ10mm brass connector		Φ8mm speedy connector			
Max. lift	10M				70M	
Max. flow	10L/min				2L/min	
Protection	Flow alarm					
N.W	9.5Kgs				12Kgs	
G.W	12Kgs				14.5Kgs	
Dimension	49 X 27 X 38cm (L X W X H)					
Packing dimension	59 X 39 X 48cm (L X W X H)					

<5> SIMPIE TROUBLESHOOTING

Failure	Fault cause	Approach
Machine turned on but unelectrified	Power cord is not plugged in place	Plug the power cord in place
	fuse burnt-out	Replace the fuse inside the power interface which is in the back of machine
Flow alarm (panel red light) with water pipe directly connect to the outlet, inlet, there is no water flow	Water level in water tank is too low	Feed water and check the pipe leakage
When used with the device, flow alarm (panel red light), but a direct connection with the pipe outlet and inlet, there is water flowing but not alarming	Blockage in circulating water pipeline	Check circulating water pipeline
Ultra-high temperature	Chiller of poor ventilation	To improve the ventilation
	Excessive heat load	Reduce the heat load or to use other models
A normal boot, but the fan does not work	The water temperature below 20 degrees	A normal phenomenon, no processing
Switch on with alarming after adding water or changing water	Water drop in electric circuit	Natural drying or drying off cap
	Damaged pumps dry transfer	To replace or repair water pumps,prohibited anhydrous boot
Slow outfall drainage	The injection port is not open	Open the injection port

<6> PACKING LIST

1. Machine 1pc,user manual 1pc.
2. Power cord 1pc, connection hose 1pc,sealed hoop 2pcs.
3. Spare fuse for 250V/2A 1pc. (Held in the spare fuseholder of power socket.)
4. An alarm signal output plug.

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 being supervised not to play with the appliance!

CW-3000 工业循环冷却机

使用安装说明书



一、功能特点简介

CW-3000 系列是参照国际先进散热型冷却系统设计制造的专业冷却机，适用于小型水冷散热设备。

- (1) 特有断流报警安全保护功能。
- (2) 密闭式水箱，一次加水长期使用。
- (3) 实时温度监控，准确掌握发热器件工作状态。
- (4) 专业散热器强制风冷，散热量大，不易堵塞。
- (5) 设有报警输出端口，可快速保护敏感元件。
- (6) 性能价格比高，故障率低。
- (7) 有多种电源的机型，规格齐全。

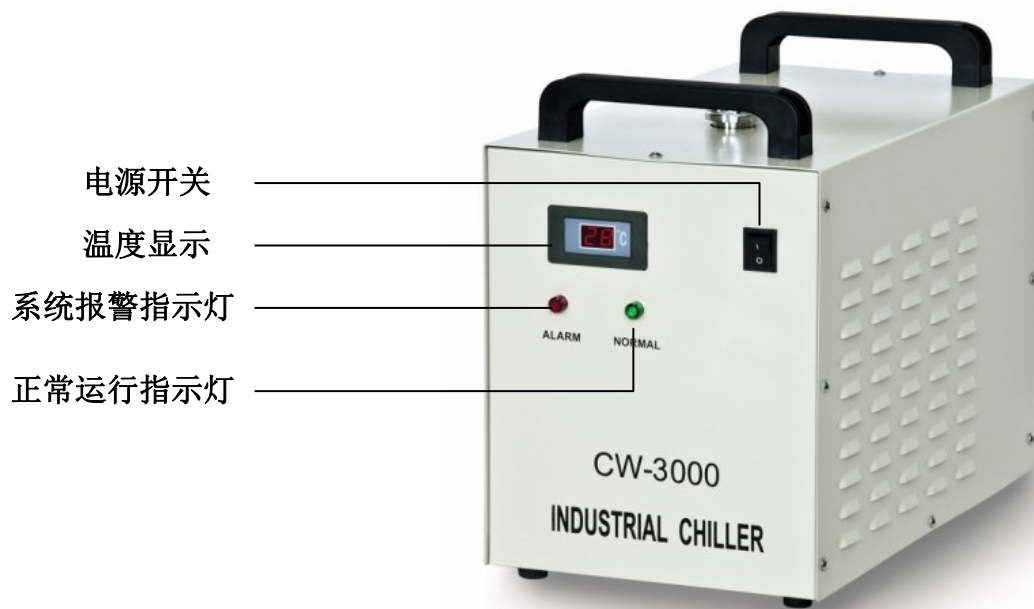
二、使用注意事项

- (1) 冷却机在没有加水的情况下严禁通电开机！
- (2) 冷却机的安放位置应尽量选择通风良好、干燥的环境，远离其它热源。机器后面的出风口距离障碍物 30cm 以上，两侧的入风口距离障碍物 10cm 以上。
- (3) 冷却机在长期不用或运输时必须排空冷却水。
- (4) 为保护发热器件，冷却机在水温较低时（约 10℃），散热风扇会暂停工作，而当水温回升到较高时（约 20℃），散热风扇将继续工作。

三、使用说明

1、外形及部件名称

机身正面



机身背面



2、首次安装

工业冷却机安装使用非常简单, 新机首次使用可以按以下步骤进行。

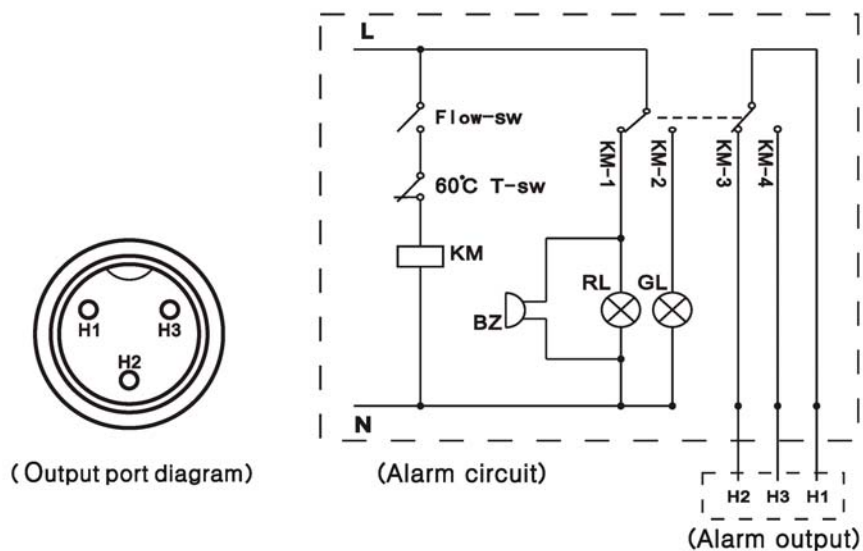
- (1) 打开包装, 检查机器是否完好, 附件是否齐备。
- (2) 拧开机器顶部注水口, 加入冷却水。(严禁无水开机)
- (3) 根据系统情况把出、入水管接好。
- (4) 接上电源, 打开电源开关。(注意不要让水溢出)
- (5) 再次检查水箱水位。(以水面距注水口距离 80-150mm 为宜)

3、报警功能说明

冷却水循环回路报警原因与工作状态表。

系统指示 工作状态	绿色 指示灯	红色 指示灯	蜂鸣器	输出端口 H1、H2	输出端口 H1、H3
系统工作正常	发光	熄灭	不发声	断路	导通
冷却水循环回路堵塞	熄灭	发光	发声	导通	断路
冷却水温度超过 60 度	熄灭	发光	发声	导通	断路
循环水泵故障	熄灭	发光	发声	导通	断路
缺水报警	熄灭	发光	发声	导通	断路
电路故障				导通	断路
供电中断				导通	断路

注：流量报警端口连接机内继电器一组常开、常闭触点。要求工作电流小于 5A，
工作电压小于 300V。



4、维护保养

- (1) 冷却机在长期使用后建议开盖清理灰垢, 以保证散热性能良好。
- (2) 北方寒冷地区应该使用无腐蚀性的防冻液。

四、技术参数

型号	CW-3000AG	CW-3000DG	CW-3000AF	CW-3000DF	CW-3000AK	CW-3000DK
工作电压	AC 1P 220V	AC 1P 110V	AC 1P 220V	AC 1P 110V	AC 1P 220V	AC 1P 110V
工作频率	50/60Hz					
工作电流	0.45A	0.9A	0.45A	0.9A	0.5A	1.0A
散热量	50W/°C					
水箱容量	9L					
出入水口	外径 10mm 铜咀		直径 8mm 快速接头			
最大扬程	10M				70M	
最大流量	10L/min				2L/min	
安全保护	流量报警					
净重	9.5Kgs				12Kgs	
毛重	12Kgs				14.5Kgs	
机器尺寸	49 X 27 X 38cm (L X W X H)					
包装尺寸	59 X 39 X 48cm (L X W X H)					

五、简单故障处理

故障现象	故障原因	处理方法
开机不通电	电源线没有插到位	把电源线插到位
	保险管熔断	更换机器后面电源接口内保险管
流量报警(面板红灯亮) 用水管直接连接出水口、 入水口, 没有水流	储水箱水位太低	加水并检查管路渗漏情况
与设备连接使用时流量报警(面板红灯亮),但用水管直接连接出水口、入水口,有水流不报警	循环水管路堵塞	检查循环水管路
水温超高	冷水机通风不好	改善通风条件
	热负荷超标	降低热负荷或选用其它机型
开机后风扇不转	水温低于 20 度	正常现象, 无需处理
加水或换水后开机报警	电路进水	自然晾干或开盖吹干
	水泵干转损坏	更换或维修水泵, 严禁无水开机
排水口排水缓慢	注水口没有打开	打开注水口

六、装箱清单

- (1) 工业循环冷却机一台, 使用说明书一份。
- (2) 电源线一条, 连接软管一条, 密封箍两个。
- (3) 250V/2A 备用保险管一个。(装在电源接口备用保险管座内)
- (4) 报警信号输出端插头一个。

注意：本产品为工业设备，请勿让儿童玩耍！