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Optim CW-3000

Optim CW-3000 9L Industrial Water Chiller User Manual

Model: CW-3000

1. INTRODUCTION

The Optim CW-3000 Industrial Water Chiller is a compact and efficient cooling device suitable for small water cooling applications. It is specifically designed for cooling 0.8KW or 1.5KW CNC router spindles. This chiller features a professional forced air-cooled radiator, water flow completion, and a high-temperature alarm function to ensure reliable operation. Its economical design makes it easy to install, operate, and move.

2. SAFETY INFORMATION

Please read all safety instructions carefully before operating the device. Failure to follow these instructions may result in electric shock, fire, or serious injury. Keep this manual for future reference.

- Ensure the power supply matches the chiller's voltage requirements (AC 110V 60HZ or AC 220V 50HZ).
- Do not operate the chiller with damaged power cords or plugs.
- Keep the chiller away from heat sources and direct sunlight.
- Ensure proper ventilation around the unit to prevent overheating.
- Do not immerse the chiller in water or other liquids.
- Always disconnect the power before performing any maintenance or cleaning.
- Keep out of reach of children.

3. PRODUCT OVERVIEW

The CW-3000 Industrial Water Chiller is designed for efficient heat dissipation. Below are the key components and their functions.



Figure 3.1: Front view of the Optim CW-3000 Industrial Water Chiller.



Figure 3.2: Front panel with labels for Power Switch, Temperature Display, System Alarm Indicator (red), and Running Indicator (green).

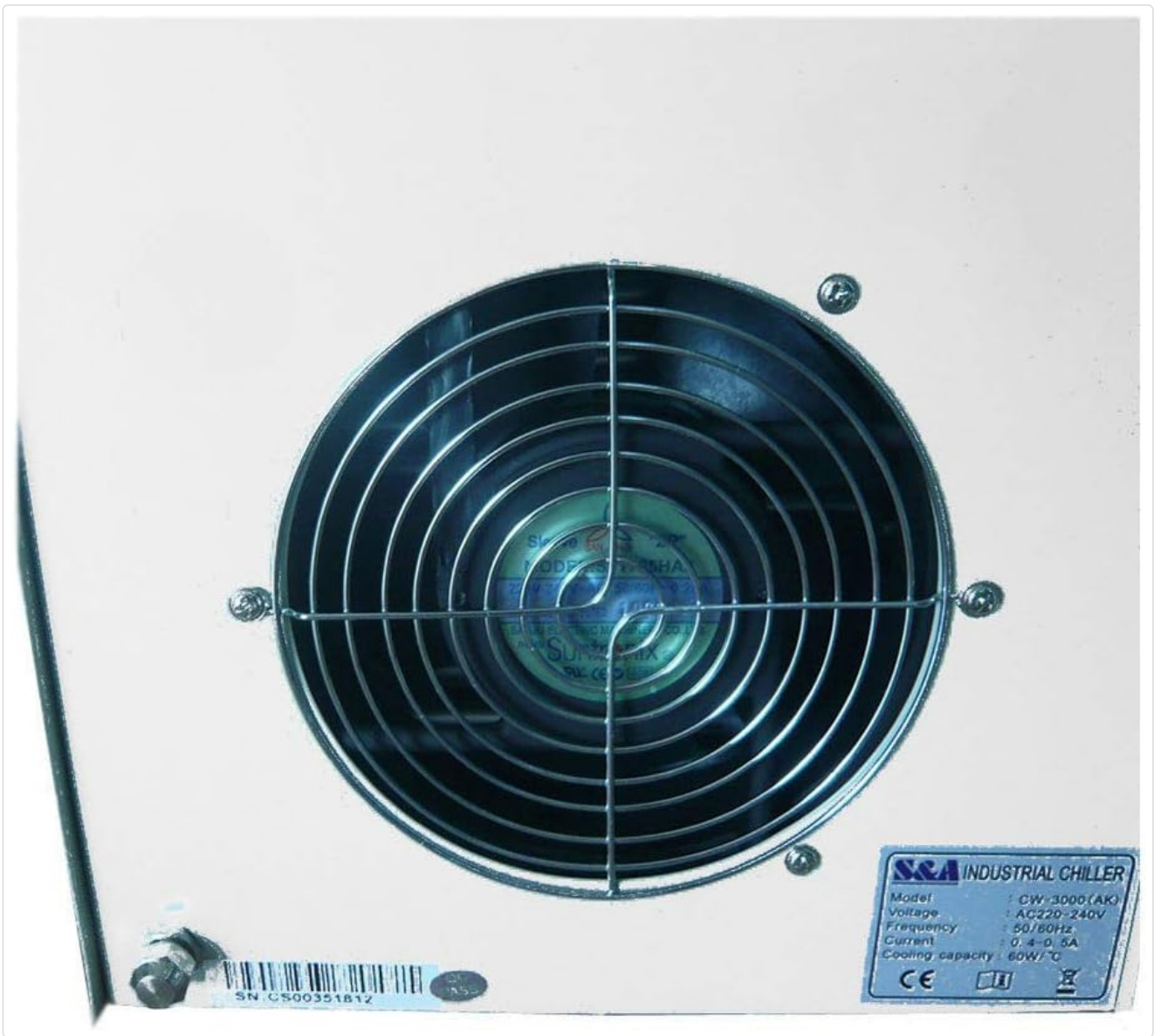


Figure 3.3: Rear view of the chiller, showing the cooling fan and product label with specifications.

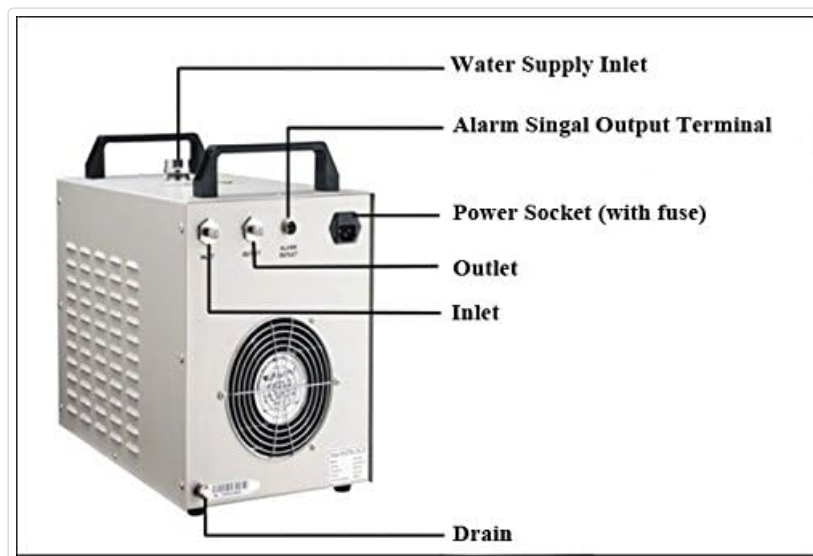


Figure 3.4: Rear panel with labels for Water Supply Inlet, Alarm Signal Output Terminal, Power Socket (with fuse), Outlet, Inlet, and Drain.

4. SETUP INSTRUCTIONS

Follow these steps to properly set up your CW-3000 Industrial Water Chiller.

4.1 Connecting Water Pipes

Connect the water inlet and outlet pipes to the chiller and your cooling application (e.g., CNC spindle).



Figure 4.1: Close-up of the chiller's water inlet, outlet, and alarm output ports.

For a visual guide on connecting the water pipes and setting up the chiller with a water pump, please refer to the video below:

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Video 4.1: This video demonstrates the connection and installation method for an aquarium cooler, which can be applied to the CW-3000 chiller's water pipe setup. It shows how to connect the pipes to the chiller and the water pump, and how to place the pump in the water tank.

4.2 Filling the Water Tank

Fill the external water tank (not included) with clean, distilled water. Ensure the water pump is fully submerged.

5. OPERATING INSTRUCTIONS

Once the chiller is set up, follow these steps to operate it.

5.1 Powering On

Connect the chiller to a suitable power outlet. The temperature display will light up. The green 'NORMAL' indicator light on the front panel will illuminate when the unit is running correctly.

5.2 Temperature Setting

The chiller features an electronic thermostat for precise temperature control. You can set the desired temperature and the temperature difference for operation.



Figure 5.1: Front panel showing the temperature display and control buttons (SET, Up, Down, RST).

For a detailed demonstration on how to set the temperature, including the temporary stop temperature and temperature difference, please watch the video below:

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Video 5.1: This video illustrates the temperature setting procedure. It explains how to set the target temperature and the temperature difference, which determines when the chiller will temporarily stop and restart cooling.

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your chiller.

- **Clean the Radiator Fins:** Periodically clean the radiator fins to ensure efficient heat dissipation. Use a soft brush or compressed air to remove dust and debris.
- **Check Water Quality:** Regularly inspect the water in the external tank. Replace with clean distilled water if it appears dirty or contaminated.
- **Inspect Hoses and Connections:** Check all water hoses and connections for leaks or damage. Tighten any loose connections.
- **Power Off When Not in Use:** If the chiller will not be used for an extended period, disconnect it from the power supply and drain the water.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your CW-3000 chiller.

Problem	Possible Cause	Solution
Chiller not turning on	No power, loose connection, blown fuse.	Check power cord, outlet, and replace fuse if necessary.
Insufficient cooling	Blocked radiator fins, low water level, incorrect temperature setting.	Clean radiator fins, refill water tank, verify temperature settings.
High-temperature alarm (red indicator)	Overheating due to poor ventilation, high ambient temperature, or insufficient water flow.	Ensure adequate ventilation, check water flow, reduce load if possible.
Water leakage	Loose pipe connections, damaged hoses.	Tighten all connections, inspect hoses for damage and replace if needed.

8. SPECIFICATIONS

Feature	Detail
Brand	Optim
Model Number	CW-3000 (Manufacturer Reference: 120A2-600W)
Power Source	AC
Voltage	220 Volts (Also available in 110V 60HZ)
Item Weight	19 Kilograms
Package Dimensions	54 x 46 x 31 cm
Cooling Capacity	Suitable for 0.8KW / 1.5KW CNC router spindles
UPC	704619563030
ASIN	B07H2XY79T

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase.