



Owner's Manual

# TORNADO SERIES



— When Experts Define Comfort...

# I. Safe Operation – Read Before Proceeding

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## Welcome & Thank You for Choosing the EVAPKOOL

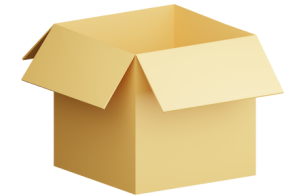
Congratulations! You are now the proud owner of our EVAPKOOL- Evaporative Air Cooler.

Please read this Instruction Manual carefully before using the product and keep it for future reference.



## II. Setup

EVAPKOOL Tornado Series units are shipped fully assembled. Models CFZ-TS-09, CFZ-TS-12, CFZ-TS-18, CFZ-TS-23 & CFZ-TS-26 ship on a plastic wrap with Styrofoam. Cut the plastic wrap, and then remove the Styrofoam from the unit.

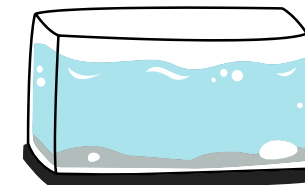


### A. Unpacking the EVAPKOOL Unit

### B. Connecting the Water and Electricity

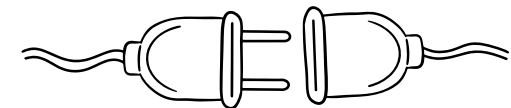
#### -Water Connection

- Ensure the unit is upright and level.
- Avoid running or covering the cord, and unplug before servicing.
- Attach a garden hose to the PVC adapter and tighten. Turn on the water to fill the tank (max 50 PSI).
- For manual fill, use the sight tube as a gauge.



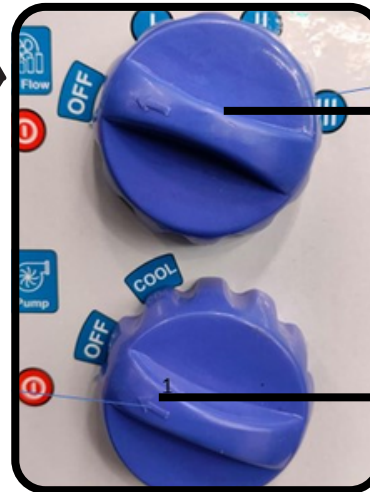
#### -Electrical Connection

Ensure the unit is upright with pads installed. Plug into a protected outlet. Avoid areas with standing water and do not use multiple outlet devices. Follow local and national codes for electrical connections.



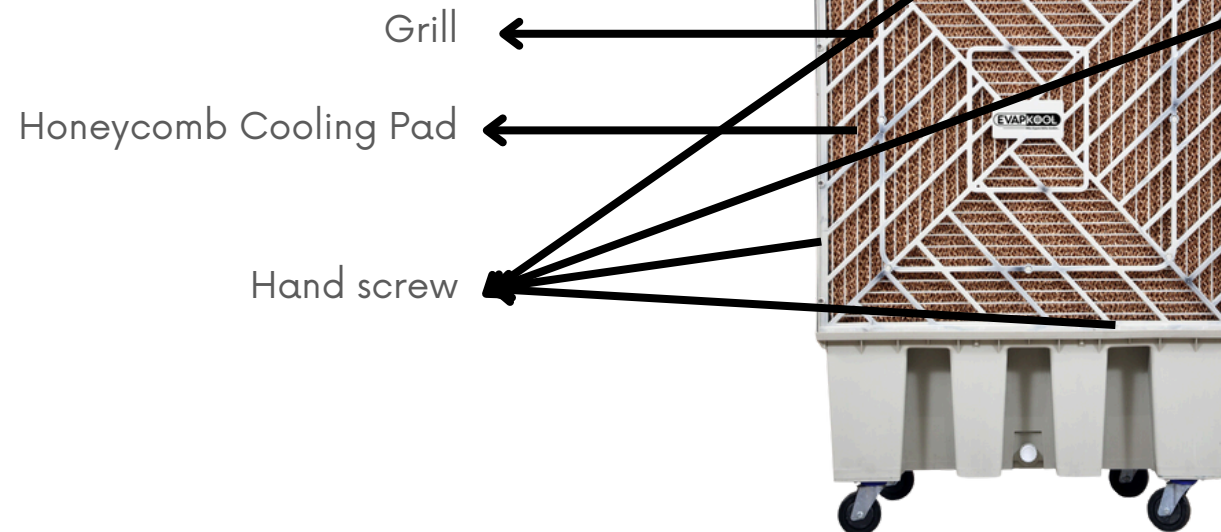
## III. Accessories Overview

### Control Panel



Air Flow/Speed Controller

Pump/Cooling Controller



Grill

Honeycomb Cooling Pad

Hand screw

## IV. Operating Procedures

**A**

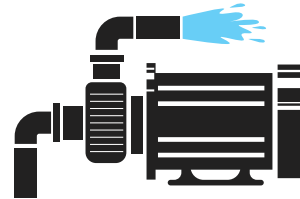


### Placement of the EVAPKOOL Unit

- Ensure fresh air supply to the pad side.
- Provide a clear area for air discharge.
- Maintain ventilation to prevent recirculating cooled air.

Maintain a 3-foot distance from walls and ensure an unbroken air path. For multiple units, align them to complement airflow.

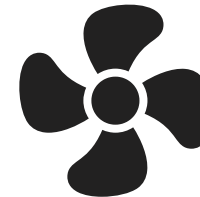
**B**



### Starting the Pump & Adjusting Water Flow

With a full sump, switch the pump to "ON". Adjust water flow using the spray bar valve to keep pads saturated but not flooded. Turn off the pump 15 minutes before the fan to dry the pads and extend their life.

**C**

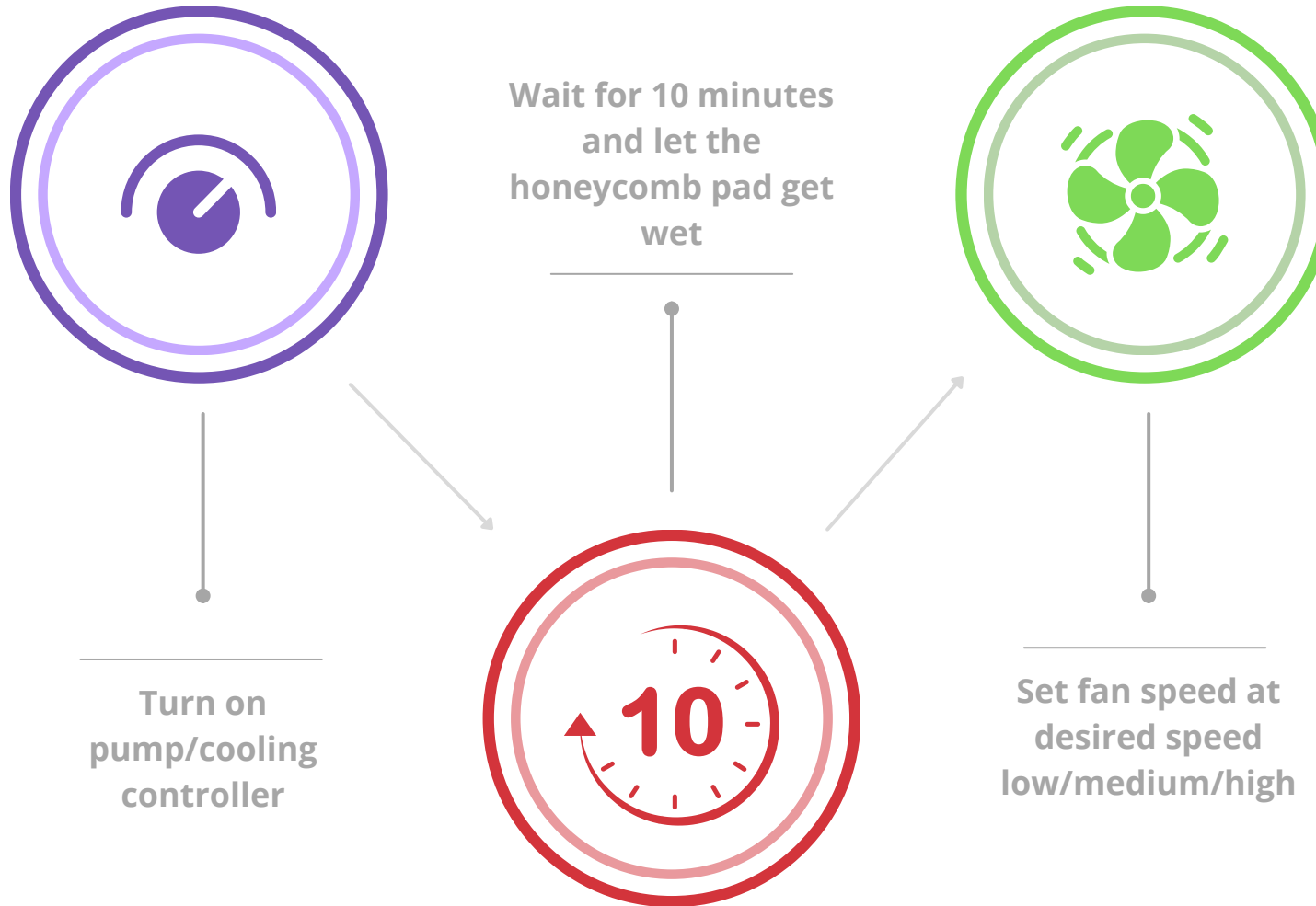


### Starting the Fan

With pads installed and caster locks engaged, switch the fan "ON". Gradually increase speed on multi-speed models. Do not run the pump when the sump is dry.

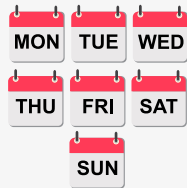
## IV. Operating Procedures

### For Maximum Performance





## V. Maintenance & Storage



### A. Daily Maintenance

Turn off the pump 15 minutes before the fan to dry the pads.



### B. Weekly Maintenance

Drain the sump tank and clean it weekly. Inspect and clean the inlet strainer and sump tank. Use a wet/dry vacuum for thorough cleaning.



### C. Storage

- Drain all water and ensure pads and sump are dry.
- Secure the power cord and cover the unit.
- Store in a dry area to prevent dust and damage to pads.

## VI. Warranty & Replacement Parts

### A. TORNADO SERIES LIMITED WARRANTY

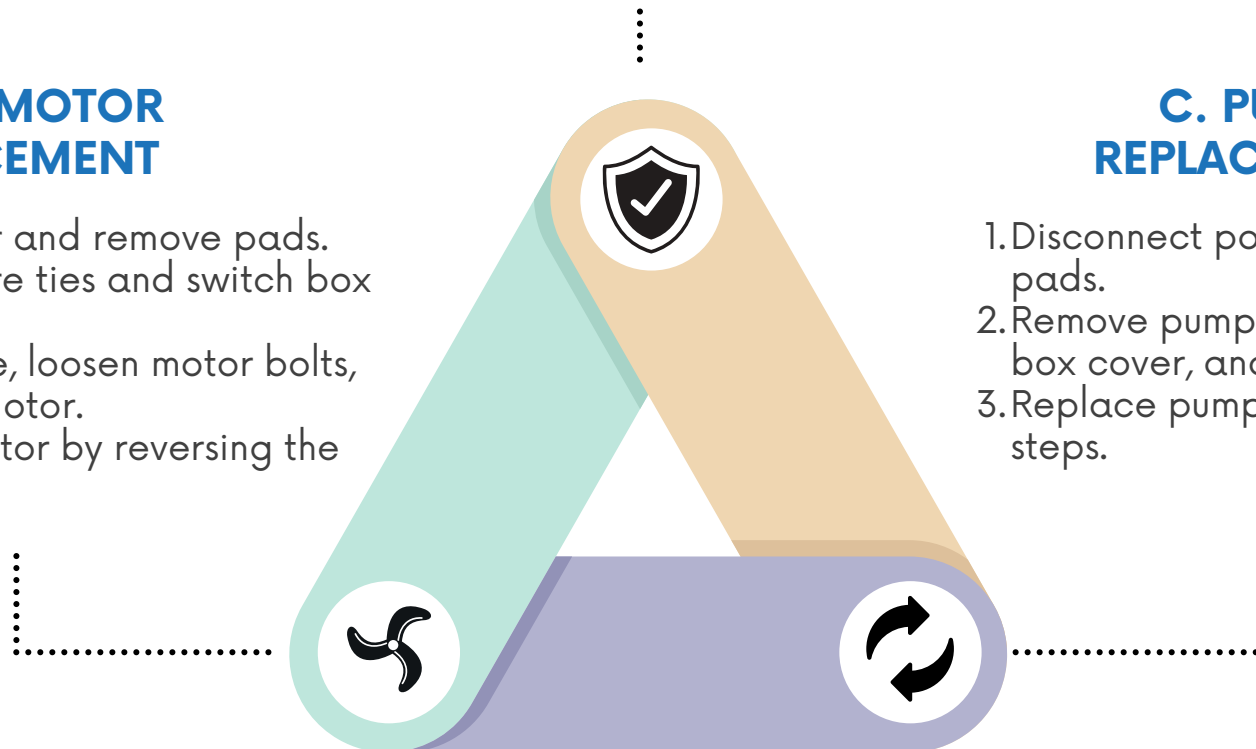
EVAPKOOL offers a **two-year warranty** on parts against manufacturing defects and a **life-time warranty on body** (Life Expectancy up to 7 years). Warranty is void if the unit is misused, tampered with or water tank is contaminated or dirty.

### B. FAN MOTOR REPLACEMENT

1. Disconnect power and remove pads.
2. Remove motor wire ties and switch box cover.
3. Unplug motor wire, loosen motor bolts, and remove the motor.
4. Install the new motor by reversing the steps.

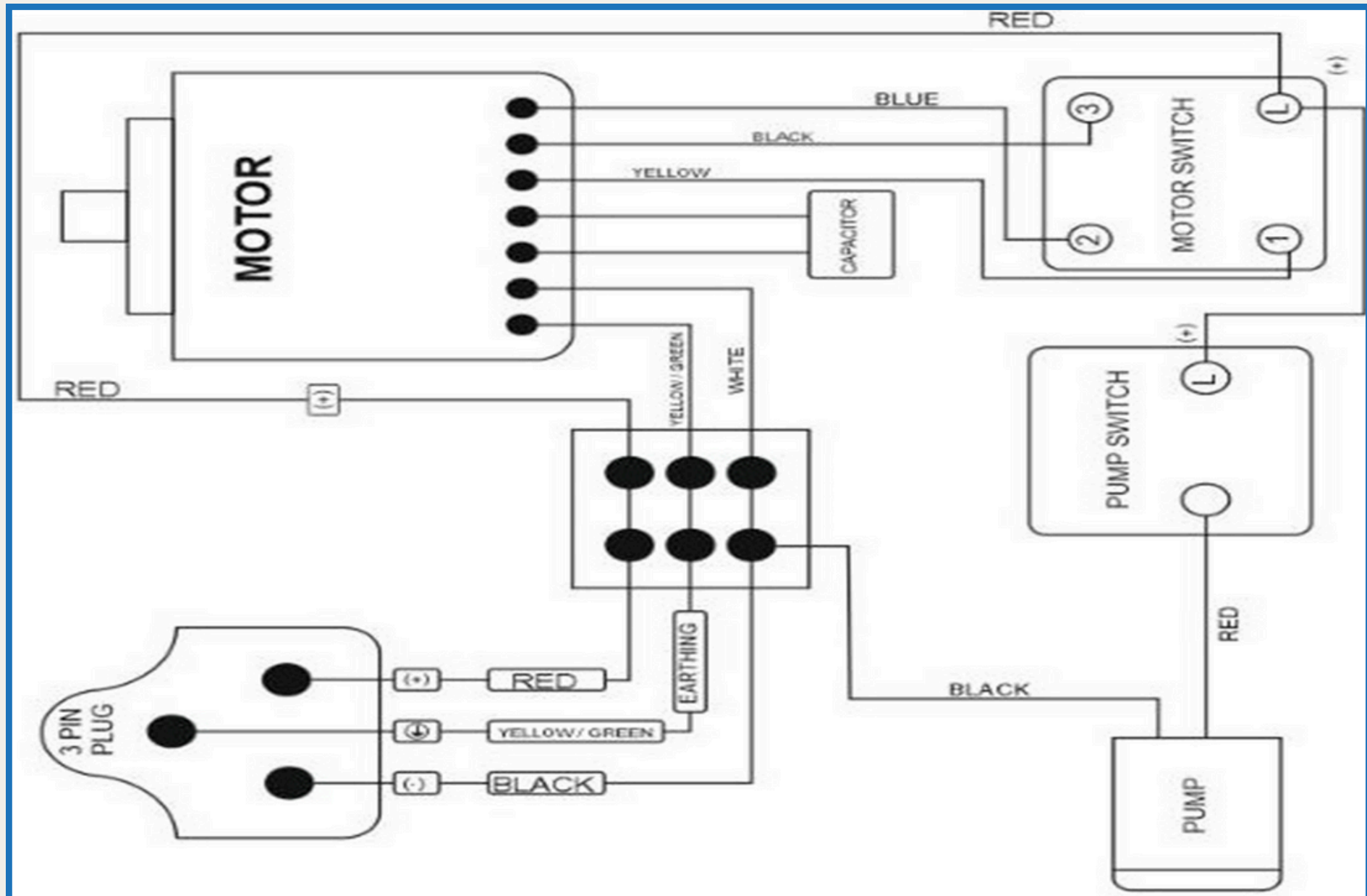
### C. PUMP REPLACEMENT

1. Disconnect power and remove pads.
2. Remove pump wire ties, switch box cover, and pump hose.
3. Replace pump by reversing steps.





# VII. Wiring Diagram



# VIII. Troubleshooting/Repair

## A. Troubleshooting

- Most problems with the EVAPKOOL units are operational. Identify the problem by checking the fan, electrical, and water systems. Problems may involve multiple systems.
- Basic hand tools and a volt/ohm meter are needed for troubleshooting.



**Caution:** Always disconnect power before accessing electrical components or the fan.

## B. Repair and Replacement Procedures

Ensure all water is drained and power is disconnected. Remove obstacles to access components for inspection or replacement.

**Replacing Cooling Pads:** Disconnect power. Remove the flap, then start with the center pad, tilting it out from the top and lifting it out of the drain trough. Remove the side pads similarly.



**Water System:** Consists of the Water Delivery System, Spray Bar Assembly, and Pump. The Water Delivery System includes the Water Inlet assembly (bulkhead fitting, float valve hose, and float valve) and Plumbing assembly (PVC riser, drain valve, and spray bar adjustment valve). Some models lack a riser or drain valve.

# VIII. Troubleshooting/Repair

PROBLEM	POSSIBLE CAUSE	SOLUTION
No discharge of air/Unit is making noise	Cord is not plugged in	Make sure power cord is plugged in and the supply switch in ON.
Not Cooling	Pump is turned OFF	Turn on PUMP function from remote or control panel.
	Low or no water in tank	Refill water tank.
Odour omission	New Unit	When the unit is new, the pad media will have an odour, which will dissipate in few days.
	Old Unit	There may be an algae issue, Replace the honeycomb cooling media or clean the tank and refill the water.

## IX. Unit Operation Warnings



## **X. FREQUENTLY ASKED QUESTIONS**

### **1 What assembly is required?**

None. EVAPKOOL units are ready to use out of the box.

### **2 How do I prepare my EVAPKOOL unit for storage?**

Drain the unit, dry the pads, and store it in a dry place. For details, call Tech Support at +971-4-88-66-520.

### **3 Why isn't my EVAPKOOL unit putting out cool air?**

Ensure the water and electricity sources are connected and working. Check that the pads are damp and there is water in the tank. For further assistance, call Tech Support at +971-4-88-66-520.

### **4 What is the best environment for EVAPKOOL units to produce cool air?**

Ensure the water and electricity sources are connected and working. Check that the pads are damp and there is water in the tank. For further assistance, call Tech Support at +971-4-88-66-520.

# X. FREQUENTLY ASKED QUESTIONS

## 5 How is evaporative cooling different from misting systems?

Misting systems spray water into the air, which can wet surfaces. EVAPKOOL units cool air through evaporation without discharging mist.

## 6 How do I prepare my EVAPKOOL unit for storage?

Drain the unit, dry the pads, and store it in a dry place. For details, call Tech Support at +971-4-88-66-520.

## 7 Should I oil the fan motor?

Follow the motor maintenance guidelines for re-oiling: continuous duty units annually, intermittent duty every two years, and occasional duty every five years with SAE no. 20 non-detergent or electric motor oil.

## 8 Where can I buy replacement parts?

Purchase from Constromech FZCO, an EVAPKOOL distributor or call at +971-4-88-66-520. Visit [www.constromech.com](http://www.constromech.com) for more information.

## X. FREQUENTLY ASKED QUESTIONS

### 9 How often do pads need replacement?

Pads typically last up to 3 years, depending on maintenance and use. For more information, contact the tech support department.

### 10 How much moisture does the unit produce?

EvapKool units increase humidity by 2% to 5%, which is not noticeable in ventilated areas.

### 11 How long does the water last in the sump tank?

Without a direct water source, the water in the sump tank lasts 2 to 8 hours, depending on model and environment. It is recommended to have a water source to refill the tank.

### 12 Should I use ice in the sump tank for better cooling?

Ice may slightly cool the air but does not significantly improve cooling efficiency.



## X. FREQUENTLY ASKED QUESTIONS

### **13 Where can I find the model and serial numbers?**

The numbers are labelled on a foil sticker on the unit housing. Model numbers begin with "CFZ-TS," and serial numbers are numeric. Provide these numbers when contacting Parts/Technical Support.

### **14 What if my questions aren't answered here?**

Tech Support is available Monday to Friday, 8.30 a.m. to 5.30 p.m. UAE time, at +971-4-88-66-520 or by email at [service@constromech.com](mailto:service@constromech.com) / [info@constromech.com](mailto:info@constromech.com).



*When Experts Define Comfort...*

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