



## MAINTENANCE CHECKLIST

PROCEDURE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1. Clean pan strainer - <b>monthly or as needed</b>												
2. Clean and flush pan* - <b>quarterly or as needed</b>												
3. Check bleed-off valve to make sure it is operative - <b>monthly</b>												
4. Lubricate pump and pump motor according to manufacturer's instructions												
5. Check operating level in pan and adjust float valve if necessary - <b>monthly</b>												
6. Check water distribution system and spray pattern - <b>monthly</b>												
7. Check drift eliminators - <b>quarterly</b>												
8. Check the fan blades for cracks, missing balancing weights, and vibrations - <b>quarterly</b>												
9. Check sheaves and bushings for corrosion. Scrape and coat with ZRC - <b>annually</b>												
10. Lubricate fan shaft bearings - <b>every 1000 hours of operation or every three months</b>												
11. Lubricate fan motor bearings - see mfg's instructions. Typically for non-sealed bearings, <b>every 2-3 years</b>												
12. Check belt tension and adjust - <b>monthly</b>												
13. Inspect and grease sliding motor base - <b>annually or as needed</b>												
14. Check fan screens, inlet louvers, fans and (dry) cooler coil. Remove any dirt or debris - <b>monthly</b>												
15. Inspect and clean protective finish - <b>annually</b> - Galvanized: scrape and coat with ZRC - Stainless: clean and polish with a stainless steel cleaner.												
16. Check water quality for biological contamination. Clean unit as needed and contact a water treatment company.												
17. Check coil surface for scale and/or corrosion - <b>every 6 months</b>												

\* Evaporative Cooling Equipment must be cleaned on a regular basis to prevent the growth of bacteria including Legionella Pneumophila.



## MAINTENANCE CHECKLIST (optional accessories)

OPTIONAL ACCESSORIES:	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1. Heater – Inspect junction box for loose wiring and moisture – <b>one month after start-up and semi-annually</b>												
2. Heater – Inspect elements for scale build-up – <b>quarterly</b>												
3. Electronic Water Level Controller – Inspect junction box for loose wiring and moisture – <b>semi-annually</b>												
4. Electronic Water Level Controller – Clean probe ends of scale build-up – <b>quarterly</b>												
5. Electronic Water Level Controller – Clean inside the standpipe – <b>annually</b>												
6. Solenoid Make-up Valve – Inspect and clean valve of debris – <b>as needed</b>												
7. Vibration Switch (mechanical) – Inspect enclosure for loose wiring and moisture – <b>one month after start-up and monthly</b>												
8. Vibration Switch – Adjust the sensitivity - <b>during start-up and annually</b>												
9. Sump Sweeper Piping – Inspect and clean piping of debris – <b>semi-annually</b>												

**DURING IDLE PERIODS:**

1. <b>Two or more days:</b> energize motor space heaters or run motor for 10 min twice daily												
2. One Month or longer: Rotate motor shaft/fan 10 turns – <b>bi-weekly</b>												
3. One Month or longer: Megger test motor windings – <b>semi-annually</b>												

## **Seasonal Shut-Down Checklist**

---

When the system is to be shut down for an extended period of time, the following services should be performed.

1. The evaporative cooling unit cold water basin should be drained
2. The cold water basin should be flushed and cleaned with the suction strainer screens in place.
3. The suction strainer screens should be cleaned and re-installed.
4. The cold water basin drain should be left open.
5. The fan shaft bearings and motor base adjusting screws should be lubricated. This should also be performed if the unit is going to sit idle prior to initial start-up.
6. The make-up water supply, overflow and drain lines, as well as the recirculating pump and pump piping up to the overflow level must be heat traced and insulated to account for any residual water.
7. The finish of the unit should be inspected. Clean and refinish as required.
8. The fan bearings and motor bearings need to be turned at least once a month by hand. This can be accomplished by making sure the unit's disconnect is tagged and locked out, and grasping the fan assembly, rotating it several turns.
9. Closed Circuit Coolers only - If the recommended minimum fluid flows thru the heat transfer coil cannot be maintained, and there is no anti-freeze solution in the coil, the coil must be drained immediately whenever the system pumps are shut down or flow stops during freezing conditions. This is accomplished by having automatic drain valves and air vents in the piping to and from the cooler. Care must be taken to ensure that the piping is adequately insulated and sized to allow the water to flow quickly from the coil. This method of protection should be used only in emergency situations and is neither a practical nor recommended method of freeze protection. Coils should not be drained for an extended period of time, as internal corrosion may occur. See Cold Weather Operation section of this document for more details.

**See fan and pump manufacturer maintenance and long term storage instructions for more detailed instructions.**