



# 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. Check operating level in pan and adjust float valve if necessary – <b>monthly</b>												
5. Check water distribution system and spray pattern – <b>monthly</b>												
6. Check drift eliminators – <b>quarterly</b>												
7. Check the fan blades for cracks, missing balancing weights, and vibrations – <b>quarterly</b>												
8. Check sheaves and bushings for corrosion. Scrape and coat with ZRC - <b>annually</b>												
9. Lubricate fan shaft bearings* – <b>every 1000 hours of operation or every three months</b>												
10. Check belt tension and adjust – <b>monthly</b>												
11. Sliding motor base – Inspect and grease – <b>annually or as needed</b>												
12. Check fan screens, inlet louvers and fans. Remove any dirt or debris – <b>monthly</b>												
13. Inspect and clean protective finish – <b>annually</b> - Galvanized: scrape and coat with ZRC - Stainless: clean and polish with a stainless steel cleaner.												
14. Check water quality for biological contamination. Clean unit as needed and contact a water treatment company for recommended water treatment program** – <b>regularly</b>												

**OPTIONAL ACCESSORIES:**

1. Gear Reducer – Check oil level with unit stopped – <b>24 hours after start-up &amp; monthly</b>												
2. Gear Reducer/Piping – Do visual inspection for oil leaks, auditory inspection for unusual noises and vibrations – <b>monthly</b>												
3. Gear Reducer - Replace oil – <b>semi-annually</b>												
4. Oil Pump – Do visual inspection for leaks and proper wiring – <b>monthly</b>												
5. Gear Reducer/Coupling – Check alignment of the system – <b>24 hours after start-up &amp; monthly</b>												
6. Coupling/Shaft – Inspect flex elements and hardware for tightness, proper torque & crack/deterioration – <b>monthly</b>												

\* See maintenance manual for start-up instructions and lubrication recommendations.

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



## MAINTENANCE CHECKLIST *(continued)*

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

### DURING IDLE PERIODS:

1. <b>Two or More Days:</b> Energize motor space heaters – or run motors for 10 minutes <b>twice daily</b>												
2. <b>Few Weeks:</b> Run gear reducer for 5 minutes – <b>weekly</b>												
3. <b>Several Weeks:</b> Completely fill gear reducer with oil. Drain to normal level prior to running.												
4. <b>One Month or longer:</b> Rotate motor shaft/fan 10 turns – <b>bi-weekly</b>												
5. <b>One Month or longer:</b> 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 start up.
6. The water make up valve needs to be closed. All water make-up, overflow and drain piping needs to be drained, if not heat traced and insulated.
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 locked and tagged out, and grasping the fan assembly, rotating it several turns.
9. Energize motor space heaters.

**See Fan & Pump Manufacturer Maintenance and long term storage instructions for more detailed instructions.**