

Recommended Maintenance Schedule

| PROCEDURE | | FREQUENCY | |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--|
| 1. | Clean pan strainer | Monthly or as needed | |
| 2. | Clean and flush pan** | Quarterly or as needed | |
| 3. | Check bleed-off valve to make sure it is operative | Monthly | |
| 4. | Check operating level in pan and adjust float valve if necessary | Monthly | |
| 5. | Check water distribution system and spray pattern | Monthly | |
| 6. | Check drift eliminators | Quarterly | |
| 7. | Check the fan blades for cracks, missing balancing weights, and vibrations | Quarterly | |
| 8. | Check sheaves, bushings, fan shafts and fan hubs for corrosion. Scrape and coat with ZRC | Annually | |
| 9. | Lubricate fan shaft bearings* | Every 1000 hours of operation (or every three months) | |
| 10. | Check belt tension and adjust | Monthly | |
| 11. | Sliding motor base – Inspect and grease | Annually or as needed | |
| 12. | Check fan screens, inlet louvers and fans. Remove any dirt or debris | Monthly | |
| 13. | Inspect and clean protective finish - Galvanized: scrape and coat with ZRC - Stainless: clean and polish with a stainless steel cleaner. | Annually | |
| 14. | Check water quality for biological contamination. Clean unit as needed and contact a water treatment company for recommended water treatment program** | Regularly | |
| 15. | Check AXS (crossflow) hot water basins for debris and corrosion | Monthly | |

OPTIONAL ACCESSORIES:

| 1. | Gear Reducer – Check oil level with unit stopped | 24 hours after start-up & monthly | |
|----|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------|--|
| 2. | Gear Reducer/Piping – Do visual inspection for oil leaks, auditory inspection for unusual noises and vibrations | Monthly | |
| 3. | Gear Reducer – Replace oil | Semi-annually | |
| 4. | Oil Pump – Do visual inspection for leaks and proper wiring | Monthly | |
| 5. | Gear Reducer/Coupling – Check alignment of the system | 24 hours after start-up & monthly | |
| 6. | Coupling/Shaft – Inspect flex elements and hardware for tightness, proper torque & crack/deterioration | Monthly | |
| 7. | Heater Controller – Inspect controller and clean probe ends | Quarterly | |
| 8. | Heater - Inspect junction box for loose wiring and moisture | One month after start-up and semi-annually | |

* 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.

Recommended Maintenance Schedule (continued)

OPTIONAL ACCESSORIES:

| 9. Heater – Inspe | ect elements for scale build-up | Quarterly | |
|---------------------------------------|--------------------------------------------------------------|--------------------------------------|--|
| | er Level Controller – Inspect junction box g and moisture | Semi-annually | |
| 11. Electronic Wat of scale build- | er Level Controller – Clean probe ends | Quarterly or as needed | |
| 12. Electronic Wat the standpipe | er Level Controller – Clean inside | Annually | |
| 13. Solenoid Make strainer of deb | e-up Valve – Inspect and clean valve and ris | As needed | |
| 14. Vibration Swite loose wiring a | ch (mechanical) – Inspect enclosure for nd moisture | One month after start-up and monthly | |
| 15. Vibration Swite | ch – Adjust the sensitivity | During start-up and annually | |
| 16. Sump Sweepe of debris | er Piping – Inspect and clean piping | Semi-annually | |
| 17. Water Level In | dicator – Inspect and clean | Annually | |
| 18. SUN Solar Pa hose and soft | nels – Inspect for damage and clean with brush | Semi-annually | |

DURING IDLE PERIODS:

| Idle Period | Recommended Action | Frequency |
|---------------------|-----------------------------------------------------------------------------------|---------------|
| Two or More Days | Energize motor space heaters - or run motors for 10 minutes | Twice daily |
| Few Weeks | Run gear reducer for 5 minutes | Weekly |
| Several Weeks | Completely fill gear reducer with oil. Drain to normal level prior to running. | Once |
| One Month or Longer | Rotate motor shaft/fan 10 turns | Bi-weekly |
| Che Monar di Longer | Megger test motor windings | Semi-annually |