

Water-source heat pump annual maintenance checklist

The annual water-source heat pump service is the deep pass: the measurements, cleanings and tests a quarterly round doesn't reach. This checklist keeps the full service on record with the photos that make it defensible later. Work is commonly verified against IMC, manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The mechanical service tech on the annual, with the unit off, the water side isolated and the space protected below the access panel. When: Once a year, the pass that isolates the water side to clean the strainer and verify flow and pressure drop, and opens the cabinet to reach the coil, pan and blower the quarterly never touches.

Air side and coil

- ☐ **Coil deep-cleaned and drain pan pulled and re-pitched**
Coil cleaned through the full fin depth, no leaks at the tube connections, pan removed and scrubbed to bare surface, pan and line re-pitched to drain and trap rebuilt and primed. 2 photos required
- ☐ **Blower and motor serviced**
Motor bearings checked, wheel cleaned and balanced, amp draw within nameplate at each speed, no imbalance or rub. 1 photo required

Water side

- ☐ **Strainer cleaned and hose kit and isolation valves serviced**
Y-strainer basket pulled, cleaned and resealed, hose kits and unions checked for wear and leaks, isolation and any motorized valve stroked full range and seating. 2 photos required
- ☐ **Flow and pressure drop verified across the coax**
Pressure drop across the water-to-refrigerant coax measured and compared to the manufacturer's flow curve, autoflow or balancing valve confirmed delivering design flow, entering and leaving water temperatures logged. 2 photos required

Refrigerant, controls and electrical

- ☐ **Reversing valve operation proven under load in both modes**
Unit driven through heating and cooling under real load, reversing valve shifting fully and holding, refrigerant operating pressures and temperatures read where the system allows and compared to the data plate, a low reading treated as a leak to find rather than a top-off. 1 photo required
- ☐ **Electrical connections and thermostat verified**
Terminal and disconnect connections tight with no heat discoloration, contactor and capacitor sound, thermostat calibrated and occupied and unoccupied modes proven with no overrides left set. 1 photo required