

Air handling unit annual maintenance checklist

The annual air handling unit 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 ASHRAE guidance, SMACNA duct construction. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The HVAC service lead, often coordinated with the controls contractor. When: Once a year, scheduled for a shoulder season so the unit can be down for cleaning without comfort complaints.

Before service

- ☐ **Filter and coil pressure drops read before cleaning**
Static pressure across the filter bank and each coil read on the gauge or a manometer while running, so the cleaning result shows. 1 photo required
- ☐ **Every energy source to the unit locked out for the annual**
Each fan, heater, drive and control circuit locked, tagged and proven dead; airflow, amp and safety checks run under the procedure's temporary release, people clear, then re-locked. 1 photo required

Deep service

- ☐ **Coils cleaned through the full depth**
Cleaning from the leaving-air side so debris exits the way it entered, coil visibly clean to a light behind it. 2 photos required
- ☐ **Fan wheel and housing cleaned and inspected**
Wheel blades free of buildup, housing and floor of the section cleaned, no corrosion through. 2 photos required
- ☐ **Bearings lubricated and drive fasteners torqued**
Grease type and amount from the manufacturer's schedule, sealed bearings noted, motor base and hub set screws torqued to spec. 1 photo required
- ☐ **Drain pan scrubbed, slope checked and line flushed**
Pan cleaned to its surface, slope toward the outlet confirmed, line flushed through the trap, coating checked for rust. 1 photo required

Performance

- ☐ **Airflow measured and compared to design**
Traverse or flow-station reading recorded against the design CFM, not just a damper position. 1 photo required
- ☐ **Fan static pressure and motor amps compared to the balance report**
Readings taken under the energized-work procedure and PPE, compared with the balance report and the motor nameplate amps. 1 photo required
- ☐ **Sensors and actuators calibrated**
Space, discharge and mixed-air readings compared against a reference instrument; dampers stroke to command. 1 photo required

Cabinet

- ☐ **Cabinet seals, doors and gaskets intact**
No air whistling past door gaskets, latches pulling doors tight, insulation liner intact. 1 photo required
- ☐ **Electrical connections and safeties checked**
Terminations checked for heat marks, safeties and interlocks functionally tested. 2 photos required

Return to service

- ☐ **Guards, panels and doors secured after the annual**
Every guard and panel refitted, doors latched, cleaning water and debris cleared from the sections and the floor below. 1 photo required
- ☐ **Locks cleared and the unit run through a full start**
Locks removed by the person who hung them, unit started from the controller and fan brought to speed with no alarm. No photo required
- ☐ **Annual readings recorded beside last year's baseline**
Pressure drops, amps and airflow entered in the unit history next to last year's values, deficiencies reported to the owner. No photo required