READY TO INSPECT — FIELD CHECKLIST

Air-cooled condensing unit annual maintenance checklist

The annual condensing 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 manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The licensed refrigeration tech on the annual, the only one touching the refrigerant circuit. When: Once a year at cooling-season startup, so the coil clean, the charge check and the electrical service all happen before the unit is leaned on.

Lockout and cabinet

- [ ] Lockout and tag applied at the unit disconnect
  Disconnect locked, tagged and zero voltage proven on the load side; charge, amp and safety checks run under the procedure's temporary release, people clear, re-locked before hands go back in.
  1 photo required

- [ ] Base pan and compressor compartment cleared out
  Leaves, litter and nesting removed from the base pan and compressor bay, drain openings in the pan clear, no chewed wiring or insulation.
  1 photo required

Coil and airflow

- [ ] Condenser coil deep-cleaned through the rows
  Coil cleaned through the full depth with the correct cleaner and pressure, debris flushed from between the rows, fins combed straight afterward.
  2 photos required

- [ ] Fan blades, hub and motor mount serviced
  With the unit locked out, blades checked for cracks, hub set screw tight on the shaft, motor mount bolts snug and no end play or rough spots turning the shaft by hand.
  1 photo required

Refrigerant side

- [ ] Refrigerant charge verified by measurement
  Charge confirmed by subcooling or superheat per the unit's method rather than a gauge glance, readings compared against the manufacturer's target for the conditions.
  2 photos required

- [ ] Refrigerant circuit leak-checked
  Connections, service ports and coil checked for oil staining or leaks, any suspected leak confirmed with a detector, no signs of past top-offs masking a leak.
  1 photo required

- [ ] Refrigerant added or recovered logged by the certified tech
  Any charge adjustment, leak repair or recovery done by a certified refrigerant technician, with the amount and refrigerant type entered on the unit's refrigerant log.
  No photo required

Electrical and compressor

- [ ] Contactors, relays and wiring serviced
  Contactor points inspected for pitting and burning, connections tightened, no discolored or brittle wiring, capacitors within tolerance where fitted.
  2 photos required

- [ ] Compressor and motor readings within nameplate
  Compressor and fan-motor amp draw read against nameplate, crankcase heater working where fitted, no unusual start behavior or noise.
  1 photo required

- [ ] Capacitors discharged and read against their rating
  With the unit re-locked, each run or start capacitor discharged and read against its printed rating, no bulged top or oil; inverter units checked per the manufacturer instead.
  1 photo required
- [ ] Supply voltage read at the unit against nameplate
  Line voltage and balance across phases read at the disconnect under the site's energized-work procedure and PPE, within the nameplate range with the unit running.
  1 photo required
- [ ] Unit safeties tested per the manufacturer's procedure
  High and low pressure controls, compressor overload and any anti-short-cycle delay proven to trip and reset as the manufacturer describes, none jumpered or bypassed.
  No photo required

Return to service

- [ ] Panels, guards and disconnect cover refitted
  Every access panel fastened, fan guard secure, disconnect cover closed, and no tools, rags or cleaner containers left inside the cabinet.
  1 photo required
- [ ] Locks removed and unit restarted on a cooling call
  Lock and tag cleared by the person who hung them, unit restarted and run until pressures and fan staging settle, then cycled off cleanly.
  No photo required
- [ ] Annual readings recorded as next year's baseline
  Voltage, amp draws, charge readings and capacitor values entered against the unit so next season's service is compared against this one.
  No photo required