

Chiller quarterly maintenance checklist

A quarterly chiller round is short on purpose: it catches the wear items that fail between annual services. This checklist is sized for a tech with a phone. Every item says what to look at and the photo that proves the round happened. Work is commonly verified against ASHRAE guidance. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The chiller service tech on the contracted quarterly visit. When: Every quarter, with readings taken under load so the numbers mean something, not at standby.

Operating readings

- ☐ Full operating log taken under load
Pressures, temperatures, amps and approach values recorded and compared against the commissioning baseline. 2 photos required
- ☐ Approach temperatures within normal range
Evaporator and condenser approach values not trending up, since a rising approach is the early signal of fouling or low charge. 1 photo required
- ☐ Controller alarm and trip history read before clearing
Alarm and shutdown history on the chiller controller logged before anything is reset, repeat trips reported to the owner. 1 photo required
- ☐ Oil level and pressure checked on oil-lubricated compressors
Oil level in the sight glass and oil pressure at the controller within the manufacturer's range, oil-free machines noted. No photo required

Leak and moisture check

- ☐ Chiller and fittings checked for refrigerant leaks
Leak check at joints, valves and the purge unit; any oil trace investigated, not wiped off. 2 photos required
- ☐ Sight glass and moisture indicator read
Indicator shows dry, flow visible where the design provides a glass. No photo required
- ☐ Refrigerant log reviewed for charge added since last visit
Log kept by the certified refrigerant technician checked, any charge added matched to a leak found and repaired. No photo required

Water side

- ☐ Water treatment current for both loops
Treatment test results logged, strainers checked, no signs of scale or biological fouling. 1 photo required
- ☐ Flow devices and safeties verified
Flow switches and freeze protection proven to trip, not assumed from last year's test. 1 photo required
- ☐ Evaporator water pressure drop read against design
Pressure drop across the evaporator, and the condenser on water-cooled machines, read on the gauges and compared to design flow. 1 photo required

Machine and starter

- ☐ Starter or drive cabinet checked from outside while running
Cabinet fans and filters clear, no heat, odor or buzzing at the doors, starter display free of faults. 1 photo required

- ☐ **Insulation on the evaporator and cold piping intact**
Insulation and vapor barrier on the evaporator, suction line and chilled water connections unbroken, no sweating or ice on the surface. 1 photo required

Close-out

- ☐ **Chiller left in automatic with the owner's setpoint**
Controller back in automatic, chilled water setpoint as the owner set it, any panel opened during the visit closed. 1 photo required
- ☐ **Quarterly log filed and deficiencies reported**
Readings filed against the chiller serial number, open deficiencies and recommended actions sent to the owner. No photo required