READY TO INSPECT — FIELD CHECKLIST

Hot water recirculation pump quarterly maintenance checklist

A quarterly recirculation pump 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 IPC / UPC plumbing codes, manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The plumbing or building maintenance tech on the quarterly mechanical round. When: Every quarter, paired with the water heater check since a dead recirc pump shows up first as slow hot water at the far fixtures, not at the heater.

Leaks and operation

- [ ] Seal, flanges and body checked for leaks
  No weeping at the pump seal, isolation flanges or unions, no rust trail or drip under the circulator, motor and body dry.
  2 photos required

- [ ] Pump running and moving water quietly
  Circulator energized when the controls call, running without growl, cavitation gurgle or excessive vibration, a temperature rise felt across the pump confirming it is actually moving water rather than dead-heading.
  1 photo required

- [ ] Flow arrow on the pump body pointing toward the heater
  Arrow cast or labeled on the body points in the return direction, back toward the heater inlet, so the pump was not fitted backward on a past swap.
  1 photo required

- [ ] Rotor can or motor end checked for the pump type
  Wet-rotor cartridge: no weep or scale crust at the rotor can or vent screw. Flanged motor-driven pump: motor mount tight and guard fitted.
  1 photo required

- [ ] Isolation valves either side of the pump found fully open
  Both isolation valves fully open with handles in place, not left part-closed after a past service where they throttle the loop.
  1 photo required

Check valve and controls

- [ ] Check valve holding against reverse flow
  With the pump off, the return line does not thermosiphon hot the wrong way, and with it on the flow is in the intended direction, no sign of a check stuck open or chattering.
  1 photo required

- [ ] Aquastat, timer and controls set as intended
  Aquastat setpoint and any recirculation timer schedule confirmed against the intended settings so the pump maintains the loop through occupied hours rather than sitting idle.
  1 photo required

- [ ] Timer or schedule clock showing the actual time of day
  Where a timer or BAS schedule runs the pump, its clock matches the actual time rather than drifting after an outage, so the run window covers occupied hours.
  No photo required

Delivered temperature

- [ ] Return temperature verified on the loop
  Actual return-line temperature measured near the pump and compared to the setpoint, confirming hot water is being carried back rather than the loop running cold between calls.
  1 photo required

- [ ] Wait and temperature taken at the farthest fixture
  Farthest fixture run until the thermometer steadies, wait time and reading compared with the design and last quarter, and not above the site's scald limit.
  1 photo required

- [ ] Balancing valve settings found at their marked positions
  Where the loop has balancing valves, memory stops or marked settings found undisturbed, and any valve moved since the balance reported rather than reset by eye.
  No photo required

- [ ] Pipe insulation intact on the loop at the pump and heater
  Insulation on the supply and return piping around the pump and heater whole, jacketed and dry, no bare runs shedding the heat the loop is meant to carry.
  1 photo required

Records and reporting

- [ ] Return reading compared with the water management plan
  Where the owner keeps a legionella water management plan, the return reading checked against its control limit and any low reading reported to the owner the same day.
  No photo required

- [ ] Quarterly readings logged to the loop record
  Return and far-fixture readings, wait time, control settings and any leak or noise found logged against the pump so the next round reads against them.
  No photo required