READY TO INSPECT — FIELD CHECKLIST

Radiant heating manifold quarterly maintenance checklist

A quarterly radiant heating manifold 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 IMC (mechanical code), manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The hydronic or maintenance tech on the quarterly mechanical round. When: Every quarter through the heating season, walked with the boiler and pumps. A manifold in a closet gets ignored until a floor runs cold.

Pressure and fill

- [ ] System pressure read at the manifold against the cold-fill mark
  Gauge sits at or above the fill setting with the system cold, no obvious drop since the last round, expansion tank not waterlogged.
  2 photos required
- [ ] Manifold and fittings dry with no weeping
  Compression and union joints clean and dry, no mineral crust or drip staining under the manifold, isolation valves not seeping.
  1 photo required
- [ ] Manifold isolation valves found fully open
  Supply and return isolation valves at the manifold fully open with handles intact, none left part-closed from past work, position marks or tags legible.
  1 photo required
- [ ] Glycol makeup tank level checked where the loops carry glycol
  On glycol systems, the makeup or feeder tank holds premixed fluid and its fill pump or valve is not cycling constantly, a low level or frequent refill reported.
  No photo required

Loop balance

- [ ] Each loop flow meter reads against its balanced setting
  Every flow meter shows movement and sits near its recorded set point, no loop reading zero, meters not fogged or stuck.
  2 photos required
- [ ] Manifold vented clear of air
  Auto vent or manual vent bled until water runs clean, no gurgling in the loops, flow meters steady after venting.
  1 photo required
- [ ] Loop tags at the manifold match the rooms served
  Every supply and return port tagged with the room or zone it heats, tags legible and matching the loop schedule, untagged or wrong loops recorded for relabeling.
  1 photo required

Actuators and controls

- [ ] Thermal actuators cycle open and closed on a zone call
  Actuator stem lifts on a call and drops on satisfaction, wiring landed and intact, no actuator stuck or buzzing.
  1 photo required
- [ ] Zone thermostat setpoint and room reading checked
  Each zone thermostat set to the owner's schedule, its room reading close to a handheld thermometer, floor-sensing units showing a live probe value.
  1 photo required

- [ ] Zone controller lights matched to each actuator's position
  Wiring center or BAS shows a call for each zone whose actuators are open and none for closed ones, pump and heat source enable following the calls.
  1 photo required

Temperatures and mixing

- [ ] Floor supply temperature held under the floor limit
  Floor supply read downstream of any mixing valve with zones calling, not above the maximum set by the design or the floor covering manufacturer.
  1 photo required

- [ ] Supply to return temperature split read at the manifold
  Thermometers or BAS points, or an IR thermometer at the supply and return headers, read with zones calling, split compared with design and last quarter, a wide split reported.
  1 photo required

Rooms served and records

- [ ] Floor surface temperature spot-read in a calling zone
  Infrared thermometer reading taken on the floor in a zone that is calling, compared with the surface limit from the design or the floor covering manufacturer.
  1 photo required

- [ ] Floor covering changes in served rooms reported
  Owner or occupants asked about new rugs, carpet or flooring over heated floors since the last round, any change reported to the engineer since it cuts output.
  No photo required

- [ ] Zones back on schedule and round readings logged
  Thermostats back to the owner's setpoints, vents closed and cabinet shut, pressure, temperatures and loop flow findings logged against the manifold tag.
  No photo required