READY TO INSPECT — FIELD CHECKLIST

Active chilled beam quarterly maintenance checklist

A quarterly active chilled beam 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 HVAC or controls tech on the quarterly round, working from a lift or ceiling access. When: Every quarter, because beams run dewpoint-close by design and a little coil fouling or a failed valve is what turns a tuned unit into a dripping ceiling.

Access and isolation

- [ ] Occupants told and furniture below the beam protected
  Occupants or site contact told before the face drops, desks, equipment and floor below covered with drop cloths, ceiling grid and face panel handled without damage.
  No photo required

- [ ] Beam control power isolated and tagged before the face drops
  Actuator and controller power isolated and tagged under the site's procedure; released with hands and tools clear for stroke and sensor checks, then isolated again.
  1 photo required

Coil and water side

- [ ] Perforated face and induction path vacuumed
  Room-side perforated face and the induction gap to the coil vacuumed, coil face brushed lightly along the fins, lint bagged, dust kept off the covered furniture.
  1 photo required

- [ ] Coil clean and control valve stroking correctly
  Coil face and fins clean, no lint mat, control valve modulating and seating fully, no weeping at connections.
  2 photos required

- [ ] Supply water temperature held above room dewpoint
  Chilled-water supply reset above the space dewpoint, no condensation on the coil, casing or connecting pipe insulation.
  2 photos required

- [ ] Coil hoses or pipe connections unstrained and insulated
  Flexible hoses or hard pipe to the coil not kinked, stretched or chafing, insulation and vapor seal closed up to the coil stubs, no bare cold metal left to sweat.
  1 photo required

Nozzles and primary air

- [ ] Induction nozzles clear and primary air proven
  Nozzles free of dust and lint, primary air plenum pressurized and delivering conditioned, dehumidified air, no whistling or blockage.
  1 photo required

- [ ] Primary air plenum pressure read against the balancing report
  Plenum static read at the beam's test port with a manometer and matched to the balancing report for this beam, a low or high reading traced to the duct or damper.
  1 photo required

- [ ] Induced airflow seen leaving the discharge slots
  Smoke pencil or tissue at the slots shows air thrown along the ceiling on each side, no dumping onto desks and no dead slot where a nozzle or coil section is blocked.
  No photo required

- [ ] Nozzle setting matched to the schedule on adjustable beams
  Where the beam has adjustable nozzles or a flow selector, the setting read and matched to the beam schedule or balancing report, any change recorded.
  No photo required

Condensation and controls

- [ ] No condensation and dewpoint/leak controls responding
  Beam, casing and ceiling dry, condensation or dewpoint sensor and any leak detector active, valve closing on a dewpoint alarm.
  1 photo required

- [ ] Room dewpoint worked out by hand and compared with the BAS
  Handheld temperature and humidity read in the room, dewpoint worked out and compared with the BAS dewpoint used for this zone, from a room sensor or the air handler.
  1 photo required

- [ ] Heating and cooling valves never open together on four-pipe beams
  On beams with a separate heating coil, the BAS and valve indicators show one valve shut while the other opens, no simultaneous heating and cooling at changeover.
  No photo required

Return to service

- [ ] Face panel closed, latched and seated flush in the grid
  Control power isolated again before hands go back in, hinged face swung up and latched or drop-out face re-hung on its retaining cables, seated flush, drop cloths lifted.
  1 photo required

- [ ] Tag removed, beam released to auto and findings logged
  Tag removed by whoever hung it, beam back under BAS control and cooling, plenum pressure, dewpoint reading and any condensation logged against the beam tag and room.
  No photo required