READY TO INSPECT — FIELD CHECKLIST

Active chilled beam annual maintenance checklist

The annual active chilled beam 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 IMC (mechanical code), manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The HVAC service lead on the annual service, coordinated with the controls contractor. When: Once a year, timed with the seasonal changeover so the coil can be cleaned and the dewpoint interlock proven before the humid cooling season.

Shutdown and access

- [ ] Space outage agreed and furniture below the beams covered
  Service window agreed with the owner or occupants, desks and flooring under each beam covered, occupants told cooling is off in those rooms during the work.
  No photo required

- [ ] Beam power isolated and coil isolation valves closed and tagged
  Control power isolated and tagged, coil valves closed; valves reopened and coil vented before the temporary release for stroke, flow and interlock tests, then re-isolated.
  1 photo required

Coil deep clean

- [ ] Face panel taken down and washed off the beam
  Going past the quarterly vacuum, face panel lifted off its hinges or retaining cables and washed or wiped clean away from the beam, perforations clear, finish undamaged.
  1 photo required

- [ ] Coil cleaned through and airflow restored
  Fins cleaned full-depth per the manufacturer, nozzles cleared, induced airflow restored, no fin damage from cleaning.
  2 photos required

- [ ] Coil vented of trapped air after the valves reopen
  Air bled at the coil vent or the branch high point with a catch cup held, until water runs solid and the coil face cools evenly along its length.
  No photo required

Valve and actuator

- [ ] Control valve and actuator serviced and stroked
  Actuator drives the valve fully open and closed, seats tight, strainer clean, insulation and vapor seal restored at the connections.
  1 photo required

- [ ] Coil water flow measured at the balancing valve ports
  Differential meter connected to the balancing or pressure-independent valve ports, flow read with the valve open and compared with the balancing report for this beam.
  1 photo required

- [ ] Heating mode proven on beams that heat
  On four-pipe or changeover beams, heating commanded, heating valve or changeover proven, warm air at the slots and the chilled-water valve held shut.
  No photo required

Dewpoint control verification

- [ ] Dewpoint/condensation interlock proven and water reset confirmed
  Simulated high-dewpoint condition closes the chilled-water valve, chilled-water reset holds above dewpoint, primary-air dehumidification confirmed.
  2 photos required

- [ ] Dewpoint or humidity sensor serving the zone calibrated
  Beyond the quarterly spot read, the room or air handler sensor the zone's dewpoint comes from checked against a calibrated reference, adjusted or replaced, values recorded.
  1 photo required

- [ ] Window contact closing the chilled-water valve where fitted
  Where operable windows have contacts, opening one drives the valve shut and the BAS shows it, then the window closed and the beam back on its call.
  No photo required

Return to service

- [ ] Beam hangers checked and face panel re-hung
  Re-isolated after the tests: hanger rods or cables tight and the beam level, face closed or re-hung with its latches, hinges or retaining cables engaged, tiles seated.
  1 photo required

- [ ] Isolation removed by whoever applied it and the beam restarted
  Locks and tags removed by the person who hung them, valves open, beam released to auto and cooling, drop cloths lifted and furniture below cleaned.
  No photo required

- [ ] Primary airflow worked out from plenum pressure after restart
  Plenum pressure read at the test port and converted with the manufacturer's nozzle factor, airflow compared with the design and last year's result.
  1 photo required

- [ ] Beam readings and deferred repairs recorded for the owner
  Water flow, plenum pressure, sensor calibration, interlock result and any coil or valve defects recorded against the beam tag, repairs listed for the owner.
  No photo required