READY TO INSPECT — FIELD CHECKLIST

Plate-and-frame heat exchanger annual maintenance checklist

The annual heat exchanger 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 manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The mechanical service tech on the annual service, with both circuits isolated and drained before the frame is opened. When: Once a year, the pass where the exchanger is isolated so the plate pack can be cleaned and the frame closed back to its measured dimension.

Isolation

- [ ] Owner and occupants told before heat or hot water goes off
  Owner and affected occupants told when heat or hot water will be off and for how long, and the hot side left to cool before it is drained.
  No photo required

- [ ] Both circuits isolated, drained and relieved
  Isolation valves confirmed shut on both sides, unit drained and pressure relieved, and lockout applied before the frame bolts are touched.
  1 photo required

- [ ] Drained water or glycol captured per the site's procedure
  Drained fluid collected and disposed of under the site's procedure rather than run to a floor drain, and any glycol volume noted for make-up at refill.
  No photo required

Cleaning and plates

- [ ] Plate pack opened and cleaned of fouling and scale
  Plates opened and cleaned per the published method, scale and biofilm removed from the flow gaps, plate surfaces checked for pitting or perforation.
  2 photos required

- [ ] Gaskets inspected for cracks, hardening and seating
  Each gasket checked for cracking, hardening or a slipped bond in its groove, since a failed gasket is what lets one circuit into the other.
  2 photos required

- [ ] Plate crack testing done by the qualified firm where specified
  Where the owner or manufacturer calls for it, plate crack or leak testing done by the named qualified service firm, with its report on file for this unit.
  No photo required

- [ ] Plates rehung in the manufacturer's order
  Plates rehung in the sequence and orientation on the plate arrangement drawing, with the pack edge pattern checked even before the frame is closed.
  1 photo required

Reassembly

- [ ] Frame closed to the marked tie-bar dimension
  Plate pack tightened evenly to the dimension marked on the tie bars per the nameplate, not by feel, so compression is correct.
  2 photos required

- [ ] Circuits proven not passing after reassembly
  One side pressurized from a test pump with the other vented and open to drain, and no flow or pressure rise shows on the idle side, proving no plate passes.
  1 photo required

- [ ] Insulation refitted and locks removed by whoever hung them
  Test pump off and vented, any insulation or shroud back over the pack, and each lock and tag removed by the person who hung it before the circuits refill.
  1 photo required
- [ ] Unit returned to service and proven leak-tight
  Both circuits refilled, vented and brought back under pressure, connections and pack edges confirmed dry and approach temperature restored.
  1 photo required
- [ ] Leaving temperature control driven through its range
  Control output driven through its range from the controller with the leaving temperature following, then returned to automatic holding setpoint.
  1 photo required

Record

- [ ] As-found and closing dimensions logged
  As-found and final tie-bar dimensions logged against the nameplate or manufacturer's value, so the next service knows how far the pack was taken up.
  No photo required
- [ ] Service record filed with readings and any firm's report
  As-found and as-left readings, gasket and plate condition, parts replaced and any qualified firm's report filed with the owner.
  No photo required