

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

- ☐ 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

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

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
- ☐ 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