READY TO INSPECT — FIELD CHECKLIST

Motorized control damper quarterly maintenance checklist

A quarterly control damper 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, manufacturer's published instructions. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The HVAC or controls tech on the quarterly air-side round, at the air handler and at zone dampers. When: Every quarter with the air-handler and economizer checks, since a damper that won't fully open or close skews mixed-air control until someone strokes it.

Before the round

- [ ] Damper list and the last round's open items reviewed
  Damper schedule with each BAS point in hand, last round's open items listed, and command against feedback trends scanned for dampers that lag or stick.
  No photo required
- [ ] Owner told before dampers are overridden from the BAS
  Owner or operator told which units and zones will see dampers driven off normal control, with outdoor air strokes kept brief in freezing weather.
  No photo required

Actuator and stroke

- [ ] Full open and closed stroke observed
  Damper driven to both end positions and the blades watched through the full travel, actuator not stalling or slipping short of either stop.
  2 photos required
- [ ] Fans serving the damper and actuator power locked out
  Every fan through the damper and actuator power locked and tagged; powered checks run with access doors closed, locks removed by whoever hung them, then re-locked before hands go back in.
  1 photo required
- [ ] Linkage and shaft coupling checked
  Crank arm and linkage tight on the shaft, no slop or slipped setscrew, actuator securely mounted with no play at the coupling.
  1 photo required
- [ ] Blade tie bars and any jackshaft move every blade together
  With power off, blades worked through their travel on the manual override, every blade and section moving in step, tie bars pinned, none lagging or binding.
  1 photo required
- [ ] Actuator label read against the damper schedule
  Actuator torque rating, control signal and spring return or non-spring type read from its label and matched to the damper schedule and sequence.
  1 photo required

Blades and seals

- [ ] Blades clear of debris, ice and bowing
  Blades straight and undamaged, with no leaves, nests, ice or dropped material jamming the blades or their stops.
  1 photo required
- [ ] Blade seals and edge closure checked
  Blade edge and jamb seals intact, blades meeting evenly at full close, no daylight or airflow felt through a commanded-closed damper.
  2 photos required

Controls and feedback

- [ ] Feedback compared against command
  Position feedback at the controls checked against the actual blade position at several commands, not just the two extremes.
  1 photo required

- [ ] Control signal confirmed at the actuator
  Control signal reaching the actuator and the blades responding proportionally, no reversed action or dead band at mid-stroke.
  1 photo required

- [ ] Outdoor air damper holds its minimum position
  On outdoor air dampers, the blades hold the occupied minimum the controls command, matched to the balancing report setting, not left closed or drifting.
  No photo required

Return to service

- [ ] Locks removed by their owner and the fans restarted
  Locks and tags removed by the person who hung them, fans restarted and run, and the damper seen moving to its normal command with no new alarm.
  No photo required

- [ ] Damper released from override back to automatic
  BAS override on the damper point released, the actuator's manual override disengaged, and the point showing auto and tracking its command on screen.
  1 photo required

- [ ] Stroke and feedback findings logged to the damper record
  Stroke, seal and feedback findings entered against the damper tag, with slipped linkages or leaking seals reported to the owner for repair.
  No photo required