READY TO INSPECT — FIELD CHECKLIST

Duct smoke detector annual maintenance checklist

The annual duct smoke detector 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 NFPA 72, NFPA 90A. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The facilities lead attending with the fire alarm technician and the HVAC tech, recording what happens when the detector is actuated, while the technician performs the code-required test. When: Once a year, coordinated so the air handler can be run and shut down for the test and the monitoring station is on test before the detector is actuated.

Notice and lockout

- [ ] Monitoring company and owner told before the detector is tested
  Monitoring company told signals are coming from this detector, owner told which units will shut down, and the owner's impairment procedure followed.
  No photo required

- [ ] Air handler locked out before the housing is opened for cleaning
  Every source feeding the unit locked and tagged by the HVAC tech. Before the powered tests: housing closed, people clear, locks removed by whoever hung them.
  1 photo required

Cleaning and tubes

- [ ] Sensing chamber cleaned by the manufacturer's method
  Detector head or chamber cleaned or replaced by the fire alarm technician as the manufacturer directs, the cleaned chamber photographed before the cover goes back.
  1 photo required

- [ ] Sampling and exhaust tubes pulled, cleared and refitted
  Tubes removed, inlet holes and exhaust opening cleared, refitted with the inlet holes into the airflow, and the cover and gasket reseated before the lock comes off.
  1 photo required

Actuation observed

- [ ] Differential pressure across the housing read with the fan running
  Manometer across the sampling and exhaust tubes shows a pressure difference within the manufacturer's range, compared with last year's reading for this detector.
  1 photo required

- [ ] Sensitivity reading taken within the marked range
  Sensitivity measured with the manufacturer's test instrument or read from the panel, inside the range marked on the detector, and recorded against the prior result.
  1 photo required

- [ ] Functional actuation witnessed at the detector
  Detector actuated by the technician with the manufacturer's test method or introduced smoke, alarm LED seen latching and the correct point annunciating.
  2 photos required

- [ ] Sampling proven under airflow where the method requires it
  Actuation performed with the fan running where the test method calls for it, so the detector is proven to sense in moving air and not just at a dead magnet contact.
  1 photo required

- [ ] Remote station shows alarm where one is fitted
  Where a remote test station serves this detector, its indicator seen changing to alarm while the detector is in alarm, and clearing when the detector is reset.
  No photo required

Fan shutdown and reset

- [ ] HVAC fan-shutdown interface observed on actuation
  Supply or return fan seen shutting down and any associated damper moving to its safe position when the detector actuates, matching the sequence of operation.
  2 photos required
- [ ] Signal received by the central station as programmed
  Central station confirms it received this detector's signal as the alarm or supervisory type the system is programmed for, before the detector is reset.
  No photo required
- [ ] Detector and unit restored after the test
  Detector reset from the remote station, panel returned to normal, air handler restarted and confirmed running in auto rather than left in hand.
  1 photo required
- [ ] Monitoring company and owner told the detector is back in service
  Account taken off test with the central station confirming, the owner told the units are running again, and the impairment closed in the owner's log.
  No photo required

Documentation

- [ ] Results recorded on the building side
  Which detectors were actuated, the fan-shutdown result and any deficiency the technician calls out logged with a photo and a date on the site record.
  1 photo required
- [ ] Test tag on the housing marked with the date and result
  Tag or label on the housing shows this year's test date, the technician and the result, so the quarterly round can read when the detector was last tested.
  1 photo required