

Example 8-28

Question

What are the Standards requirements for Duct Sealing, Duct Insulation, Refrigerant Charge (RC), Cooling Coil Airflow (CCA), Fan Watt Draw (FWD), Saturation Temperature Measurement Sensors (STMS) and Temperature Measurement Access Holes (TMAH), Hole for the placement of a Static Pressure Probe (HSPP) or Permanently installed Static Pressure Probe (PSPP) for the following changeout scenarios in an existing home?

1. New or replacement outdoor condensing unit and/or indoor cooling or heating coil only (no duct alteration).
2. New or replacement furnace heat exchanger only (no duct alteration).
3. New or replacement air handler unit only (no duct alteration).
4. New or replacement entire duct system only (no air handler alteration).
5. New or replacement entire duct system and air handler only.
6. New or replacement entire duct system and outdoor condensing unit, and indoor cooling or heating coil (no air handler alteration).
7. New or replacement entire duct system, outdoor condensing unit, indoor cooling or heating coil, and air handler (i.e. entire space conditioning system).
8. New or replacement entire duct system and packaged air conditioner or heat pump (i.e. entire space conditioning system).
9. New or replacement packaged air conditioner or heat pump (no duct alteration).
10. More than 40 ft of new or replacement ducts installed (but not replacing the entire duct system as in #4 above) in unconditioned space (no other alteration).

Answer

1. Duct sealing (§152(b)1E), RC, CCA \geq 300 CFM/ton, TMAH.
2. Duct sealing (§152(b)1E), RC, CCA \geq 300 CFM/ton, TMAH.
3. Duct sealing (§152(b)1E), RC, CCA \geq 300 CFM/ton, TMAH.
4. Duct sealing < 6 percent (§152(b)1Di), Duct Insulation, CCA \geq 300 CFM/ton.
5. Duct sealing < 6 percent (§152(b)1Di), Duct Insulation, RC, CCA \geq 300 CFM/ton, TMAH.
6. Duct sealing < 6 percent (§152(b)1Di), Duct Insulation, RC, CCA \geq 300 CFM/ton, TMAH.
7. Duct sealing < 6 percent (§152(b)1Di), Duct Insulation, RC, CCA \geq 350 CFM/ton, FWD \leq 0.58 watt/CFM, TMAH, STMS, and either HSPP or PSPP.
8. Duct sealing < 6 percent (§152(b)1Di), Duct Insulation.
9. Duct sealing (§152(b)1E).
10. Duct sealing (§152(b)1Dii), Duct Insulation.

Notes: RC is required in climate zones 2, 8-15. CCA and FWD are required in climate zones 10-15. Duct sealing is required in climate zones 2, 9-16. New or replacement ducts must meet the mandatory requirements of §150(m) for collars, joints, and plenum connections, and the Duct Insulation requirements of Package D in §151(f)10. Duct sealing, RC, CCA, FWD, STMS, TMAH, HSPP and PSPP must be verified by a HERS rater. An entirely new duct system can include existing parts of the original duct system (e.g., register boots, air handler, coil, plenums, etc.) if those parts are accessible and they can be sealed, as described in the Duct Sealing and Insulation section above. All Non-setback thermostats must be replaced with setback thermostats meeting the requirements of Standards Section 112(c).