



Success with the 2015 Virginia Construction Code
in New Construction Homes

HVAC INSTALLATION



TECH TIPS:

HVAC Installation

1. Seal all duct terminations to drywall and/or subfloor and all HVAC penetrations in the building envelope with foam, caulk or mastic. Use fire-rated sealants where applicable.



2. Seal all HVAC components at all joints, seams and corners.



3. Mechanically fasten all metal duct work with screws. Attach the inner liner of flexible ducts with nylon/plastic straps and tighten with a manufacturer-approved tool.

TECH TIPS: *HVAC Installation*

4. Insulate all ducts outside of conditioned space to at least R-6 and supply ducts in attics to at least R-8



5. Do not compress insulated flexible ducts more than the thickness of the insulation.



6. Support flexible duct (including spot ventilation) at least every 4 feet and do not bend greater than 90°.

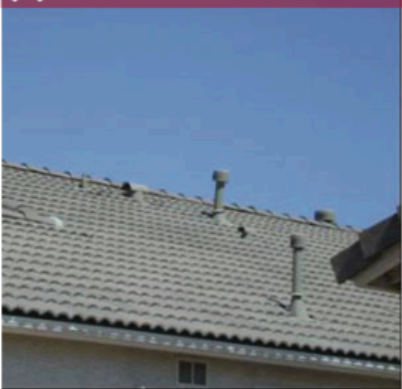


TECH TIPS:

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7. Install outside air ventilation intakes at least 10 feet from any exhaust vent or stack.

✗ WRONG LOCATION



✓ RIGHT LOCATION



8. Coordinate bath fan exhaust duct direction with electrical contractor.

✗ WRONG DIRECTION



✓ RIGHT DIRECTION



9. Terminate exhaust ventilation duct work to the outside and install a screen over the termination.

✗ WRONG TERMINATION

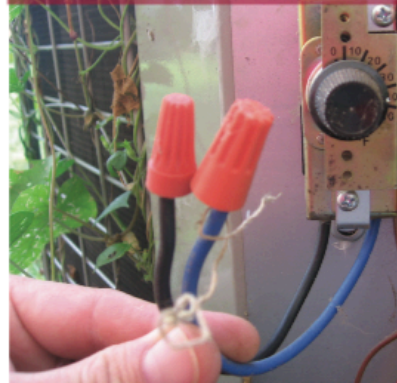


✓ RIGHT TERMINATION

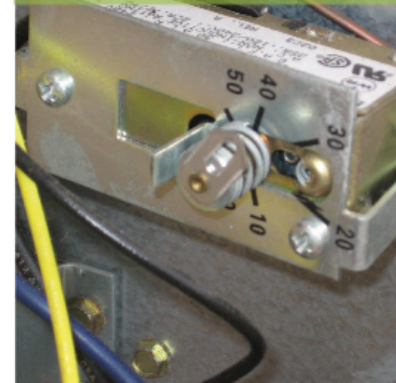


10. For heat pumps, install a heat strip outdoor temperature lockout that prevents supplemental heat operation and set it to the balance point.

✗ DISCONNECTED



✓ RIGHT INSTALLATION

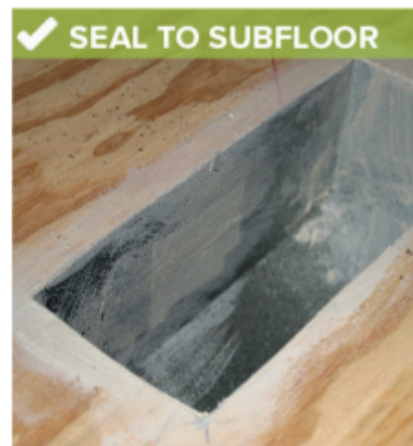


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Viridiant has seen success with sealing all joints in the air distribution system with bucket duct mastic and fabric mesh.

The 2015 Virginia USBC requires measuring the total duct leakage, unless the ducts and air handler are completely within conditioned space.



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