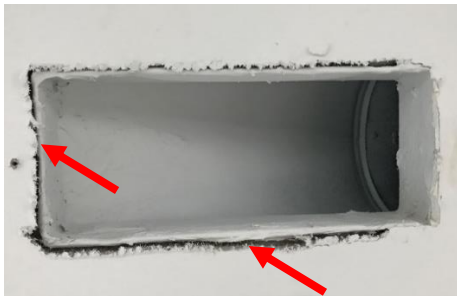


The RNC Program determines savings with a duct leakage to the outside of 3.00% or less. At times, ducts will have high leakage, or the duct blaster cannot properly pressurize a system to find the duct leakage. The following technical bulletin will discuss the tips for resolving common problems that occur while testing duct systems.

When a duct system has high duct leakage results, raters can use the following methods to improve testing results.

- The first and most common things raters should do after an issue arises is check their set up.
 - Most of time, simple things such as a loose tube connection or open supplies and return is the culprit.
- The second most common issue is duct boots unsealed to the drywall.
 - Ensure all supply boots and returns are sealed to the drywall. The images below are examples of unsealed supplies and returns.
- Check all accessible parts of the HVAC system to ensure everything is air sealed.
- Framed panned returns are returns constructed out of floor joists. These are notorious sources of air leakage. Ensure the HVAC company properly sealed any framed panned joist.
- Sometimes supplies or returns can be drywalled over by accident or ducts can be left unconnected. Make sure all ducts have a register by inspecting the attic and supply/return layouts in the ceiling. Refer below for photographic examples.



Examples of an unsealed supply and return



Examples of unconnected ducts in the attic and crawl space

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When the supply boots are caulked and everything looks connected and sealed in the attic, but ducts are still failing, one of the best ways to locate the leakage is to pressurize the system. With the home still set up for duct testing, set the duct blaster to push air into the duct system. Once the duct blaster is running, the rater can search the unit by feeling around for leaks or look around the attic for moving insulation indicating a leak.

If the duct leakage issue still isn't resolved, using a smoke machine or smoke bomb can be a last resort. The RNC Program has a smoke machine and can offer further guidance if a rater is having problems.

Please contact us at DERNC@icfprogram.com with questions or for additional information.