



Duct Tool Webinar 2011: Unanswered Questions

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Building Types

A number of questions asked how to input homes that were 1 ½ floor / split-level / partial second story (a couple of specific examples follow the response).

There are a couple of common characteristics identified in these homes: they are typically second story with the exception of one room and they have only one air handler. In these instances you should select the "SF: All of Multi-Story Home" building type. This selection provides a more accurate estimate because it leads to duct length and location assumptions that are more appropriate.

The duct tool has a single family two story option but does not have a single family partial second story option. The newer homes in my area have a master suite that has no second story with duct lines running through the attic. Based on my own home, about 400 to 500 square feet is single story. The area does not have a separate AC unit but doesn't that area impact the efficiency of the system?

A home I came up to had a 5-ton unit which was cooling all the downstairs and a single room upstairs and a second unit was also cooling the kitchen area downstairs. This is commonly known as a 1 ½ floor home. How can I input this scenario? (Note: this was later clarified to be mostly a two-story home with characteristics similar to the home in the previous example.)

Can't Reach Pressure (CRP) Multiplier

When you have a Can't Reach Pressure (CRP) doing the duct leakage test, do we use the CRP multiplier to input the numbers?

Please first refer to your Duct Blaster, or similar device's, User Manual. The Duct Blaster User Manual is available here: <http://www.energyconservatory.com/download/dbmanual.pdf>

Before using a Can't Reach Pressure Factor, make sure that you use the Duct Blaster fan with the largest Flow Ring available in order to increase the maximum air flow available from the fan. If you still cannot achieve 25 Pascal, then use a CRP factor in accordance with the User Manual calculation to determine the estimated 25 Pascal reading. This approximate value can then be used in the Duct Tool.

Foundation Types

How do I input a single family house with part of the foundation being a slab and the remaining being crawlspace?

The Duct Tool is designed to estimate energy savings attributed to duct leakage sealing and provides inputs for the most common housing types in Texas. If the house is substantially one foundation (e.g. a house with a crawlspace but a slab for the garage) then you should input that foundation. Consult your utility's program manager in more ambiguous scenarios.

Duct Types: Clarification

During the Q&A section of the September 21st webinar Frontier Associates provided incorrect information regarding the "Duct Type" input. To clarify: the duct type's effect on the model has to do with its thermal conductivity, which is a function of the duct material (rather than a mechanical property).