

## **Best Practices – Unable to Obtain Duct Blaster Reading**

**Date:** Revised January 5, 2017

**Subject:** Unable to Obtain Duct Blaster Reading

**Problem or Question:** Our Agency completed a duct blower test and was unable to reach a pressure of 25 Pa. because the pressure was too low to obtain a cfm reading the manometer showed dashes. Is there a default number that we can use for the energy audit in order evaluate duct repair?

**Discussion:** Yes, a default number can be used. Before using a default number though, Subrecipients should troubleshoot their duct blaster setup to ensure the test was run properly. Make sure hoses are plugged into the right ports, the manometer setting is accurate (device, ring selection, etc), and ensure that there is not any blockage in the pressure probe at the nearest register, etc. If verified that this is indeed the case, Subrecipient staff should spend a significant amount of time investigating the status of the duct system and evaluate all potential options to fix the issue. If a complete replacement of the duct system is needed, allow the energy audit to evaluate and justify the measure. Discussions with Oakridge National Labs and the Energy Conservatory concluded that reasonable default numbers would be 25 Pa and a cfm reading of 800. These numbers are derived from the ability of the Duct Blaster's ability to create pressure and the maximum cfm reading that the Duct Blaster is capable of recording (see the Duct Blaster Operations manual).

For energy audit procedures, the readings of 25 Pa and 800 cfms should be entered into the energy audit in order to evaluate duct repair. According to experts at Oakridge National Labs, readings larger than 800 cfm may create unrealistic SIRs that will affect the validity of entire energy audit. (For complete instructions on how to enter all Duct Blower Data please review the Department's Best Practices titled "Duct Testing Targets")

**Recommendation Summary:** Subrecipients, who are unable to reach 25 Pa and obtain a cfm reading while completing a duct test, may use the default numbers of 25Pa and 800 cfm. These default numbers may be entered into the energy audit under total duct leakage and leakage to the outside. Staff must document that a reading could not be obtained, why the default # is being used, and take photographs of the duct system including the return and supply plenums. Readings this high, at the initial inspection, indicate a high priority to address duct sealing during the weatherization process.