



TEXAS DEPARTMENT OF LICENSING AND REGULATION

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Industrialized Housing and Buildings Technical Bulletin

IHB TB 12-01 – Duct Testing in Residential Occupancies

Revised April 13, 2017

Code: 2015 International Energy Conservation Code (IECC)

Referenced Sections: R403.3.3, Duct testing, and R403.3.4, Duct leakage

The 2015 Energy Conservation Code becomes effective for the Texas Industrialized Housing and Buildings program on August 1, 2017. Testing of ducts to determine air leakage (verify that ducts are adequately sealed) is MANDATORY as required in **Section R403.3.3 of the IECC**.

A written report of the results of the test must be signed by the party conducting the test and provided to the local code officials or the Council approved inspector performing the installation inspection. A FINAL INSPECTION CANNOT BE PASSED WITHOUT A TEST REPORT DEMONSTRATING CODE COMPLIANCE.

The code gives an option of a post-construction test or a rough-in test. These tests are performed with a pressure differential of 0.1 inch w.g. (25 Pa).

Rough-In Test: This test is performed after all duct connections have been made. There are 2 options for this test.

- Total leakage shall be less than or equal to 4 cfm per 100 ft² of conditioned floor area where the air handler is installed.
- Total leakage shall be less than or equal to 3 cfm per 100 ft² of conditioned floor area if the air handler is not installed at the time of the test.

Post-Construction Test: Total leakage shall be less than or equal to 4 cfm per 100 ft² of conditioned floor area. This test is performed across the entire system, including the manufacturer's air handler enclosure.

The post-construction test would always happen at the installation site after all construction is completed.

In most cases, the rough-in test would also happen at the installation site. The only exception might be if there were no duct connections between modular sections required to be completed at the installation site because all the duct work was completed in the plant.

Although in most cases the duct testing will need to be completed at the installation site, it is strongly recommended that manufacturers of residential modules consider testing that portion of the ducts constructed in the plant to ensure that their portion of the work was completed as required by code.

NOTE: Duct tightness testing is not required if the air handler and all ducts are located within the conditioned space.