Blower Door Testing Certification

Dates are Dependent on State's Covid-19 Directives

Purpose:

To communicate and learn basic skills of performing a residential blower door test meeting specifications required in 2018 IECC Energy Code. Successful students will know how to use a blower door to determine air leakage and its effect on a residence and the utility bill as well as assuring that homes with combustion appliances are safe.

Rationale:

As blower door testing moves into normal conversation as well as meeting requirements for 2018 IECC, it is important to have an ample supply of trained professionals. That training has primarily been the exclusive domain of large national organizations whose overhead has demanded large fees charged to the trainees. The Arkansas HVACR Association proposes to provide a training program that meets or exceeds that offered by large national organizations and qualifies in code and utility energy programs as "equivalency". This training is especially important to the HVACR industry due to potential 2018 IECC being adopted by Arkansas and its emphasis on blower door testing. This training is stand alone or can be used as part of the Residential Energy Auditing program offered by the Association.

Students of the Blower Door class will understand the concept, importance of, and be able to demonstrate their abilities:

1. Using Formulas Provided In Class, Calculate Square Footage And Volume Of Homes With a. single floors b. multiple floors c. split level d. flat ceilings e. vaulted ceiling f. tray ceilings g. walk out basements h. cantilevers i. bonus rooms	5. Be able to explain and successfully test for implications of ACH_n & ACH_{50} with emphasis on Minimum Ventilation Requirements.
2. Set Up a Blower Door for Whole House Depressurization at 50 Paschals using instructions in manual and class instruction	6. Calculate MVR, Minimum Ventilation Requirement, using formulas provided in class and with a MVR calculator
3. Test House at CFM_{50} gathering data using TEC Model 1000 or Retrotec Model 32 a. CFM_{50} b. ACH_n c. ACH_{50}	7. Find typical areas of whole house leakage
4. Calculate ACH_n & ACH_{50} using formulas & charts provided in class	8. Check combustion appliances for (CAZ Testing) a. gas leaks b. carbon monoxide creation c. back drafting d. worst case and normal operation scenarios

Materials Required:

1. Furnished Materials
   a. Copy of Blower Door Manual
   b. Simple calculator
   c. 2 pencils
   d. 1 eraser
   e. 1 notepad 8x10 (standard size)
2. Student Materials
   a. None Required For Classroom
   b. Blower Door For Optional Field Test

Meals & Snacks

Morning: Snacks, Coffee, Water (furnished)
Lunch (on site) (furnished)
Afternoon: Snacks, Water, Soft Drinks (furnished)

Class Tuition & Fees

		Association Membership Discounts & Pricing	
Class	Tuition	Association Membership Discount	Cost to Association Member
Blower Door	$155	25	130

For an additional feee, students may opt in to an in-field, hands-on test for use of blower door. Field test must be completed within 3 months of classroom instruction and the the student must furnish the blower door.

Due to class size, companies may only send two attendees. Additional attendees are permissable if space permits.

Classes are limited to a maximum of 16 students each class

Lodging

Lodging, if required, is up to the student and not included in the class tuition and fees

Locations : Training Sessions in 9 regions (Dates to be announced to be held between January 1 & April 31, 2020)

Chapter Location	Potential Licensees	Population	Dates	Time	Proposed Host	Address
Central / Little Rock	717	671,459	TBD	8 a.m. to 5 p.m. each day	To Be Determined	
Ft. Smith	257	239403	TBD	8 a.m. to 5 p.m. each day	To Be Determined	
Hot Springs	193	172,720	TBD	8 a.m. to 5 p.m. each day	To Be Determined	
North Central Harrison	118	170,231	TBD	8 a.m. to 5 p.m. each day	To Be Determined	
Northeast / Jonesboro	363	279,060	TBD	8 a.m. to 5 p.m. each day	To Be Determined	
Northwest / Fayetteville, etc	354	467,567	TBD	8 a.m. to 5 p.m. each day	To Be Determined	

South Central Camden etc	109	109,187	TBD	8 a.m. to 5 p.m. each day	To Be Determined	
Southwest / Texarkana	140	147,393	TBD	8 a.m. to 5 p.m. each day	To Be Determined	
East / Forrest City	364	137,360	TBC	8 a.m. to 5 p.m. each day	To Be Determined	

Schedule of Class Topics

Day 1 (Class begins at 8:30 a.m.)

(8:30 a.m. – 9:00 a.m.) Introductions
Blower Door: What & Why

(9:00 a.m. – 9:45 a.m.)
Calculating Dimensions, Square Footage, & Volume

(9:45 a.m. – 10:00 a.m.) Break

(10:00 a.m. – 10:45 a.m.)
CFM, CFM_{50}, ACH, ACH_{50}, ACH_N

(10:45 a.m. – 11:00 a.m.) Break

(11:00 a.m. – noon)
Setting up a Blower Door

(Noon – 1:00 p.m.) Break

(1:00 p.m. – 1:45)
Setting up a Blower Door Continued
Testing Combustion Air Zone
Recording Results

(1:45 p.m. – 2:00 p.m.) Break

(2:00 p.m. – 2:45 p.m.)
What Blower Door Numbers Mean & How They Affect Energy Consumption and Health & Safety

(2:45 p.m. – 3:00 p.m.) Break

(3:00 p.m. – 3:45 p.m.) Review on set up and application of Blower Door

(3:45 p.m. – 4:00 p.m.) Break

(4:00 p.m. – 5:00 p.m.) Test on Blower Door Use / Written

For an additional fee, students may opt in to an in-field, hands-on test for use of blower door. Field test must be completed within 3 months of classroom instruction and the the student must furnish the blower door.