



**HVAC Performance Toolkit-
Combustion Air Tool**

Tim Hanes

8.13.19

Goal

Provide a tool for performing calculations to:
Determine the availability of indoor combustion air
Determine the requirements for combustion air
Design paths for combustion air

Determine the home's leakage rate with:

Location
Size
Blower Door

Determine the home's combustion air needs
By collecting information about:

Dryer
Water Heater
Furnace
Stove

Use the report from the tool to:

Help guide where we obtain combustion air
Provide guidance on sizing combustion air ducts

First start a new job. The job type is Combustion Air.

Add Job

My Jobs

My Customers

Add Customer

My Documents

My Profile

Menu

Logout

> [Customers](#) > Add Job

Job Name:

Job Type:



Use Previous Job Data:



Save Job

Combustion Air

Appliances

Reports

Comments

Date

8/6/2019

Tech's Name 

Tim

CAZ 1 Location

Basement

CAZ 2 Location

Basement

Are you doing airsealing or insulation measures?

Yes

Next Page

The first tab is Combustion Air.

In this example air sealing and insulation measures are being done.

Combustion Air

Appliances

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Comments

Blowerdoor existing CFM50 ?

Blowerdoor estimated post work CFM50 ?

Area of conditioned space ?

Volume of conditioned space ?

Number of stories above grade.

What county is the house in?

Next Page

Because air sealing and insulation measures are being done, blowerdoor measurements are gathered.

Combustion Air

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Clothes Dryer

Not Sealed Combustion No Inducer Motor

Clothes Dryer BTU Input

40000

Clothes Dryer Location

CAZ 1

Is there a second clothes dryer

No

Next Page

The second tab is where the appliance information is entered. It starts with clothes dryer information.

Water Heater**Water Heater BTU Input****Water Heater Location****Is there a second water heater**

Water heater information

Combustion Air

Appliances

Reports

Comments

Gas Furnace

Sealed Combustion



Gas Furnace BTU Input

90000

Gas Furnace Location

CAZ 1



Is there a second gas furnace

No



Next Page

Gas furnace information

Stove

Vented to outside

Stove Type

Natural Gas

Stove BTU Input

60000

Stove Location

Not in a CAZ

Is there a second stove

No

Next Page

Stove information

The information has been saved successfully.

Customer: wis, test (wis, test) ([View More](#)) ([View / Edit Customer Info](#))
ID / Job / Job Type: 5433 / Combustion Air / Combustion Air

Report Package	Report Name
Combustion Air	<input type="radio"/> Combustion Air <input type="button" value="View"/>

After completing Combustion Air and Appliances tabs, go to the Reports tab and view the results of the Combustion Air report.

WIS
5402 FM 1488 #315
Magnolia, TX 77354
8322265300
brett@wiswise.com

test wis
111 elm st
Anytown, IL 12345



Combustion Air Report

Job ID #: 5433
Date: 8/6/2019
Technician: TIm

Home Survey

Living Space Volume: 8000
Stories Above Grade: 1

County: Adams
Square Feet: 1000

Air Infiltration

CFM 50pa: 2000
ACH Natural: .79

Estimated CFM 50pa: 1500
Estimated ACH Natural: .59

Conclusions

Total Home Btu: 225000
CAZ1 Btu: 165000

Total Inside Combustion: 277649
Minimum Outside Air Combustion Air Required: No Outside Air Required

Combustion Air Outside Only

CAZ1 Btu: 165000

Minimum 1 Opening: 1
Minimum 2 Openings Direct: 1
Minimum 3 Openings Direct: 1

Combustion Air Inside Only

CAZ1 Btu: 165000

CAZ to Inside 1 Opening Minimum: 1
CAZ to Inside 2 Opening Minimum: 1

Combustion Air Inside/Outside Combination

CAZ1 Btu: 165000

CAZ to Inside 1 Opening Minimum: 1
CAZ to Inside 2 Opening Minimum: 1
Minimum Opening: 1
Minimum 2 Openings Direct: 1
Minimum 2 Openings Ducted: 1

Appliances

Name	Draft	Btu	Location
Gas Furnace	Sealed Combustion	90000	CAZ 1
Water Heater	Not Sealed No Inducer	35000	CAZ 1
Stove	Vented to Outside	60000	Not in a CAZ
Clothes Dryer	Not Sealed No Inducer	40000	CAZ 1

Home Survey Section

Home Survey

Living Space Volume:
Stories Above Grade:

County:
Square Feet:

Air Infiltration Section

Air Infiltration

CFM 50pa:
ACH Natural:

Estimated CFM 50pa:
Estimated ACH Natural:

Conclusions Section

Conclusions

Total Home Btu:
CAZ1 Btu:

Total Inside Combustion:
Minimum Outside Air Combustion Air Required:

Combustion Air Outside Only

Combustion Air Outside Only

CAZ1 Btu:

Minimum 1 Opening:

Minimum 2 Openings Direct:

Minimum 3 Openings Direct:

Combustion Air Inside Only

Combustion Air Inside Only

CAZ1 Btu:

CAZ to Inside 1 Opening Minimum:

CAZ to Inside 2 Opening Minimum:

Combustion Air Inside/Outside Combination

Combustion Air Inside/Outside Combination

CAZ1 Btu:

CAZ to Inside 1 Opening Minimum:
CAZ to Inside 2 Opening Minimum:
Minimum Opening:
Minimum 2 Openings Direct:
Minimum 2 Openings Ducted:

Appliances Section

			Appliances
Name	Draft	Btu	Location
Gas Furnace	Sealed Combustion	90000	CAZ 1
Water Heater	Not Sealed No Inducer	35000	CAZ 1
Stove	Vented to Outside	60000	Not in a CAZ
Clothes Dryer	Not Sealed No Inducer	40000	CAZ 1

QUESTIONS?

IQ OFFERING CONTACTS

- Jason Haupt, Field Energy Specialist
 - 314.281.8279 – Jason.Haupt@Leidos.com
- Tim Huber, Field Energy Specialist
 - 314.302.2919 – Tim.Huber@Leidos.com
- Robert Rusteberg, Field Energy Specialist
 - 244.315.0644 – Robert.H.Rusteberg@Leidos.com
- Matthew Price, Field Energy Specialist
 - 309.407.0606 – matthew.price@leidos.com

For Software or Technical Support Contact

**Tim Hanes
515-710-9750
amil@wiswise.com**

**For Income Qualified Offering program question/approval
Contact**

**Steve Gwinn
309-230-0959
Steve.M.Gwinn@leidos.com**



AmerenIllinoisSavings.com

