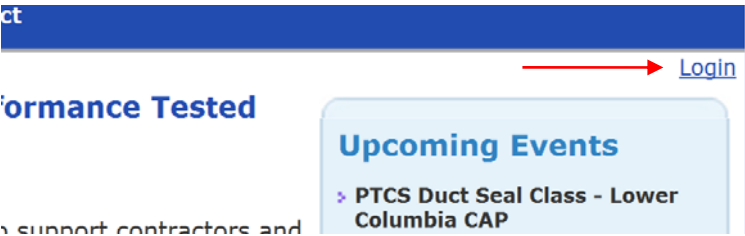
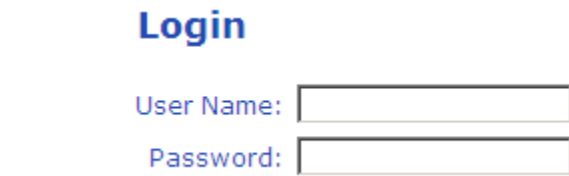
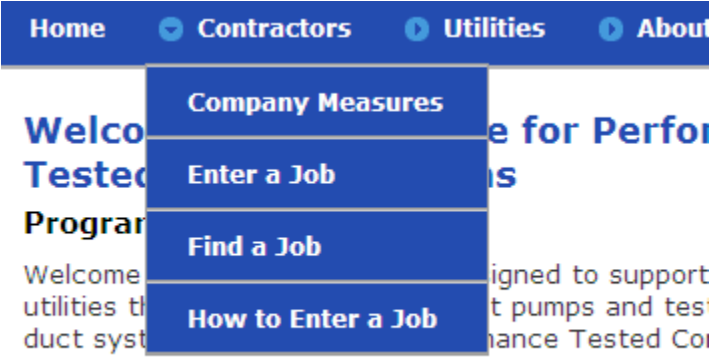


Air Source Heat Pump Online Entry Guide

May 2011

Requirements:

- PTCS certification
- PTCS site username and password
- Form filled out at the job site

<p>Click on "Login", located towards the upper right-hand corner of the home page above "Upcoming Events"</p>	
<p>Enter User Name and Password</p>	
<p>The menu bar will display a Contractors option with a drop-down menu.</p> <p>Click on contractors then Enter a Job</p>	

The first step is to validate the **Site Address**.

Technician Certification Number PTCS - <u>5555</u>	Installation Company Name <u>A-1 HVAC</u>	Electric Utility Company <u>Franklin PUD 1</u>
Customer Name <u>Richard Brown</u>	Street Address <u>2444 W 2nd Ave</u>	
Site Address 2 (Unit #/ Mailing Address) <u>1</u>	City <u>Kennewick</u>	State <u>WA</u>
	Zip Code <u>99336</u>	Phone Number <u>(555) 241-0734</u>
<input type="checkbox"/> Site Built (Existing)	<input type="checkbox"/> Site Built (New Construction)	Manufactured Home <input checked="" type="checkbox"/> Y <input type="checkbox"/> N

SECTION A:

Type in the **Street Address**, **City**, **State**, and **Zip Code**.

Select the **Home Type** from the drop-down.

If you select **Manufactured Home** a check box will appear.

Check the box if a manufactured home is in a park with lot numbers instead of individual addresses. One of the subsequent screens will ask for the lot number.

Note: If the address will not validate you will need to fax the submission to: 877-848-4074

Site Address

Street Address

City

State

Zip Code

Home Type

Is in a park with lot numbers

[Next](#)

If there is a similar site in the registry, it will pop up.

Important: If an existing site is found, click on the highlighted text to open the measure and avoid creating a duplicate site entry. Duplicate site entries must be verified and may create delays in customer rebate processing.

- if the same measure has previously been claimed at the address, the customer will not be eligible for another rebate.
- If it is a multiple system installation, submissions for more than one installation will need to be faxed in for PTCS staff entry. Just indicate a multiple system on the fax.

The following existing sites were found based on your input

[Richard Brown - 2444 W 2nd Ave 1, Kennewick, WA 99336](#)

[Previous](#)

The customer name and address will display to be verified.

Add lot number if one exists for a manufactured home

Click Next

Create New Site

Name

Street Address

Lot Number

City

State

Zip Code

[Previous](#)

[Next](#)

Type in the **Owner Info** if it is different from the **Site Info**.

If the homeowner has a different **mailing address**, check the box and include additional contact info.

Click Next

Owner Info

Owner First Name

Owner Last Name

Owner mailing address is different from site address.

Phone

Fax

Email

[Previous](#)

[Next](#)

<input type="checkbox"/> Site Built (Existing) <input type="checkbox"/> Site Built (New Construction) Year Built: _____ <input type="checkbox"/> Y <input type="checkbox"/> N Energy Star Home?	Manufactured Home <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sections <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 Energy Star Home? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Super Good Cents? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	
Foundation Type: <input type="checkbox"/> Half Basement <input type="checkbox"/> Full Basement <input type="checkbox"/> Crawl <input type="checkbox"/> Slab		
What type of heating system was installed at this site? <input checked="" type="checkbox"/> Electric Forced Air <input type="checkbox"/> Heat Pump <input type="checkbox"/> Inverter Driven Heat Pump <input type="checkbox"/> Gas Furnace Other _____		Heated Area (sq ft) 1200

Enter **Site Details** for the house.

Note:

- Utility can be found on the customer's electricity meter. Utilities in non-BPA territory (PGE, Pacific Power, NWN) may be entered for a \$45 fee only
- Other Site Details can be verified on County Assessor websites if any of this data failed to be collected previous to entry. If you do a Google search for "parcel search" and the County and State you will likely find what you need quickly.

Click Next

Site Details	
Heated Square Footage	<input style="width: 100%;" type="text" value="1200"/>
Year Built	<input style="width: 100%;" type="text" value="1984"/>
If manufactured home, how many sections?	<input style="width: 100%;" type="text" value="2"/>
Energy Certification	<input style="width: 100%;" type="text" value="Energy Star"/>
Existing Heating System Type	<input style="width: 100%;" type="text" value="Heat Pump"/>
Is an air handler installed?	<input type="checkbox"/>
Electric Utility	<input style="width: 100%;" type="text" value="Okanogan County PUD No. 1"/>
<input type="button" value="Previous"/> <input type="button" value="Next"/>	

Select **Air-Source Heat Pump**

If your unit is part or all geothermal, please reference "How to Enter a Ground Source" job

Note: If a heat pump was already completed at the address, you will not be able to enter another. If it is a multi-system house fax subsequent submissions in for PTCS staff entry, just note that it is a multi-system submission.

Click Next to continue

- [Start a Duct Sealing form](#)
- [Start an Air-Source Heat Pump form](#)
- [Start a Ground-Source \(Water to Air\) Heat Pump form](#)
- [Start a Ground-Source \(Water to Water\) Heat Pump form](#)

Enter **Technician**, **Service Date** and whether or not the system is **replacing an existing system**.

Ecos Heat Pump Entry

Technician

Certificate Information

Service Date

Site Data

Is this system replacing an existing system?

Enter the unit's **AHRI** number.

If the number is valid, the **SEER**, **HSPF** and **EER** will auto-populate.

New Heat Pump Equipment Data

AHRI Number: 3676268 SE

The **Outdoor** and **Indoor Unit** information will also auto-populate based on the AHRI number.

Site Data

Is this system replacing an existing system? Yes

NEW HEAT PUMP DATA

AHRI Number

SEER

HSPF / COP

EER

UNIT INFORMATION

Make

Model

Capacity (Tons)

INDOOR UNIT

Model

Outdoor Unit Make <i>Carrier</i>	Outdoor Unit Model Number <i>25HCC536A</i>	Capacity (tons) <i>3</i>	# of Compressor Stages <i>2</i>
Indoor Unit Make <i>Carrier</i>	Indoor Unit Model Number <i>FX4DNBF037</i>	Capacity (tons)	Locked Rotor Amps

Confirm that the unit and capacity information is **correct**.

VALIDATE SYSTEM

Is this system correct?

Enter the **External Static Pressure** for the system and select units used in measuring airflow in the **Test Measured In** dropdown.

Airflow Test

External Static Pressure

Test measured in ▼

NSOP	1 [A]	Plate Size (check one) 2	Units (check one)
38		<input type="checkbox"/> 14 <input checked="" type="checkbox"/> 20	<input checked="" type="checkbox"/> Pa <input type="checkbox"/> Inches H ₂ O
Filter Location (check one)	Indoor Unit	Return Grille	Other (explain)
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TFSOP	4 [B]	Enter Correction Factor (CF) from table or use formula	5 [C]
39		$\sqrt{\frac{\text{NSOP}[A]}{\text{TFSOP}[B]}}$.97
Plate Pressure		Raw Flow (CFM)	6 [D]
55		1120	
Corrected Flow (CFM) = [C] x [D]	7	CFM/Ton	Is flow above 350/Ton?
1086.4		362	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Enter the measurements for the **TrueFlow** test.

These **True Flow** test numbers will automatically calculate the CFM per ton and will display on the form as you enter measurements in this section.

The required CFM per ton for PTCS is between 350-600 CFM.

TRUEFLOW TEST

NSOP

Plate Size ▼

TFSOP

Plate Pressure

Calculating CFM per ton

Calculated CFM per Ton 375.79

Enter the temperatures and **Performance Test** data.

Once **Mode Tested** is selected, the **Supply Temp** and **Return Temp** fields will appear for Heating mode.

Refrigerant Charge Check

Outside Ambient Temp (F)

Stage Tested

Mode Tested ▼

Supply Temp

Return Temp

For Cooling mode, **Measured Discharge Pressure** and **Liquid Line Temp** fields will appear.

Refrigerant Charge Check

Outside Air Temp (F)

Stage Tested

Mode Tested

Measured Discharge Pressure

Liquid Line Temp (before TXV)

Enter the various elements of the **Controls Setup**

Controls Setup

Is the compressor low ambient lockout control set to 0 degrees?

The back up heat does not come on above what outdoor temperature?

Indoor Thermostat Make

Indoor Thermostat Model

Verify that all the information is correct and add any relevant **Notes**, and check that you are aware of quality assurance procedures.

Click Finish

Notes

Notes

The PTCS Provider (Ecos) is required to perform a Quality Assurance (QA) inspection on 10% of the jobs submitted. By checking this box you are indicating that you are aware of this requirement and that some of your jobs may be selected for inspection. You also agree to make, within a reasonable time frame, any necessary corrections to the jobs that fail to meet PTCS specifications upon inspection.

[Previous](#) [Finish](#)

Clicking *Finish* calculates the data.

If all data is provided and passes PTCS requirements you will receive a **job ID number** for the entry

Home Contractors Utilities About the Program My Account Contact

Welcome

Thank you for your submission.

Your submission has been validated and accepted. The job ID number for this entry is: **100027**

If something is missing or out of range, red text will appear with the reason.

At this point you may review and edit the information entered or **Save Progress** to return to the job at another time.

You can also email the errors to yourself.

Tip: put the address of the submission in the subject line.

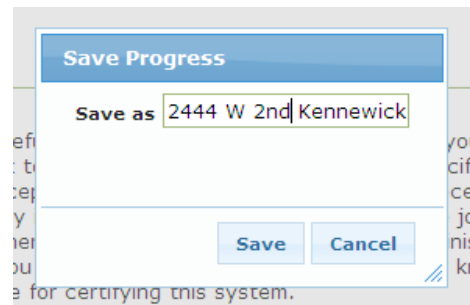
Temperature rise on supply/return is out of normal range

Email Errors

Save Progress

After clicking **Save Progress** you will be prompted to enter a **Save as** name.

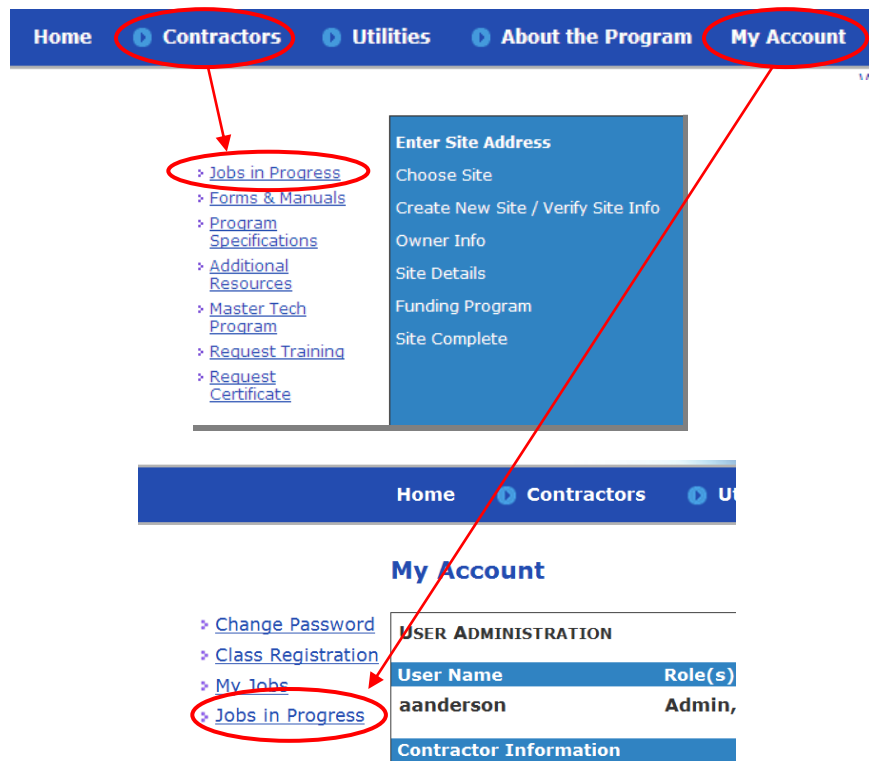
Click Save



A screenshot of a 'Save Progress' dialog box. The title bar says 'Save Progress'. Below the title bar, there is a text input field with the text '2444 W 2nd Kennewick'. Below the input field are two buttons: 'Save' and 'Cancel'.

There are two places to access your saved measures. Click on the **Jobs in Progress** link on the left Navigation links in:

- **My Account** area
- **Contractors** area



The screenshot shows the PTCS web application interface. At the top is a navigation bar with links: Home, Contractors, Utilities, About the Program, and My Account. The 'Contractors' and 'My Account' links are circled in red. Below the navigation bar, there are two main content areas. The left area is a list of links: Jobs in Progress, Forms & Manuals, Program Specifications, Additional Resources, Master Tech Program, Request Training, Request Certificate. The right area is a form titled 'Enter Site Address' with options: Choose Site, Create New Site / Verify Site Info, Owner Info, Site Details, Funding Program, Site Complete. Below this is another navigation bar with Home, Contractors, and Utilities. Below that is a 'My Account' section with links: Change Password, Class Registration, My Jobs, and Jobs in Progress. The 'Jobs in Progress' link is circled in red. To the right of these links is a table for 'USER ADMINISTRATION' with columns 'User Name' and 'Role(s)'. The table contains one entry: 'aanderson' with the role 'Admin,'. Below the table is a section for 'Contractor Information'.

Click **Resume** to return to the saved measure. You will have the opportunity to update data or supply missing data before submitting.

Jobs in Progress

Name	Measure Type	Last Saved	Delete	Resume
Richard Brown	HeatPumpAirSource	2/24/2011 3:46 PM		

Showing 1 to 1 of 1 entries

Error Messages Explained – Air Source Heat Pumps

Pending: CFM per ton does not meet the required minimum specifications.

- **Air Source Heat Pump Specifications 6.3.2** The air distribution system design and installation shall be such that air flow across the indoor coil is as specified in the heat pump manufacturer's literature, or is between 350 and 425 cubic feet per minute (CFM) per 12,000 BTU/hr output at ARI rating conditions if the manufacturer's literature is not specific.

Pending: Auxiliary heat setting not at required temperature.

- **Air Source Heat Pump Specifications 4.4.1.** For systems with a single stage of compression and for systems with multiple stages of compression but without supply air temperature sensor control: Auxiliary heat shall be controlled in such a manner that it does not engage when the outdoor air temperature is above 35°F, except when supplemental heating is required during a defrost cycle or when emergency heating is required during a refrigeration cycle failure. Exception: If the minimum setting available for auxiliary cutout on the indoor thermostat is 40°F, 40°F may be used.

Temperature rise on supply/return is out of normal range, expected a temp split value of: ##.##

- The minimum expected temperature split (supply – return) for a system is based off of the outdoor temperature (outside ambient temp) and the CFM/ton of the system. A chart with the appropriate range of temp splits should have been provided to you at training. If you wish to request another one please contact the PTCS team.

LAL must be set to 0 or disabled.

- **Air Source Heat Pump Specifications 2.4.** If a low ambient temperature compressor cutout option is installed, it shall not cutout the compressor at temperatures above 0°F.