

## **MTEC Spring Heat Pump 40-Hour Training**

**May 18 – May 22, 2015, 7:30AM – 3:00PM**

**Instructor: Roger Mitchell**

This 40-hour class will focus on Installation, Operations and Service of Ductless Mini Split Heat pump systems. The training will include discussions, live operations and 24 hours of hands on lab assignments.

Topics will include System components, Operating cycles, Installation practices and Service procedures.

The class will cover Mitsubishi, Daikin and Fujitsu mini split systems.

### **System components covered**

- Indoor / Outdoor heat exchangers
- Compressor
- Metering Device's
- Reversing valves
- Line driers
- Defrost Controls
- Thermostats

### **Operating Cycles**

- Cooling
- Heating
- Defrost
- Emergency Heat

### **Installation Practices**

- Locations
- Wall Brackett / Ground Mount installation
- Piping
- Nitrogen Pressure testing
- Wiring / NEC 70
- Triple Evacuation / Dehydration
- Manifold set up

### **Service Procedures**

- Pump down
- Test run mode
- Forced Cooling
- Reversing valve diagnostics



**Lab One - Installation Practices, 4 hours:**

- Ladder Safety
- Locating the indoor and outdoor unit
- Wall Brackett installation
- Line Hide installation
- Connect refrigeration lines
- Connect condensate drain line
- Pressure test lines

**Lab Two - Evacuation and Charging, 8 hours**

- Manifold Connections
- Vacuum Pump set up and operation
- Triple Evacuation procedure
- Charging calculations
- Refrigerant handling procedures
- Add required refrigerant

**Lab Three - Wiring methods, 4 hours**

- Electrical Safety
- Panel to outdoor unit
- Outdoor unit to indoor unit
- Operate unit

**Lab Four - Service Procedures, 4 hours**

- Pump down operation
- Remove refrigerant
- Recharge refrigerant

**Lab 5 - Service Procedures, 4 hours**

- Sensor testing
- Reversing valve testing
- LEV operation and testing
- Disassemble unit
- Lab Clean up

**Tuition:**

**Member: \$695.00**

**Non-Member: \$795.00**

**To register, or FMI please email  
Hannah Estes at**

**[hestes@maineenergymarketers.com](mailto:hestes@maineenergymarketers.com),**

**or call 207-729-5298**



# Heat Pump Training Scholarship Request Form



## Instructions

This offer is available to active Efficiency Maine Residential Registered Vendors only. Please complete and submit this form to request one of a limited number of \$500 scholarships to be disbursed upon successful completion by an employee of an approved 40-hour, ductless heat pump installation and training course completed between March 1<sup>st</sup>, 2015 and June 30<sup>th</sup> 2015. While funding is available, qualifying requests reserve funds for up to 1 reservation per Registered Heat Pump Vendor.

Scholarships will be issued upon successful completion of the course and only after a completion certificate and a paid invoice have been provided. Efficiency Maine must receive documentation before June 30, 2015 to qualify for a scholarship.

## Eligibility Criteria

Please confirm that all requirements have been met:

- Scholarship is for an employee of a Registered Heat Pump Vendor company currently listed on the Efficiency Maine website (at <http://www.energymaine.com/at-home/vendor-locator/>) ;
- Employee is currently licensed in Maine as an electrician and/or an HVAC heating technician;
- Employee has or will have successfully completed EPA 608 certification training; and,
- Employee has at least one (1) year of experience in the electrical or HVAC industry.

## Approved Trainings

The following community colleges currently offer approved trainings:

- Kennebec Valley Community College – for more information about their scheduled trainings, see <http://www.kvcc.me.edu/Pages/Energy-Services-Center/Heat-Pumps>
- Eastern Maine Community College – for more information about their scheduled trainings, see <http://www.emcc.edu/>
- MEMA Technical Education Center - for more information about their scheduled trainings, see <http://mtec4me.com/education-foundation/mtec-schedule-air-conditioning.php>

Additional courses and locations may be scheduled or approved upon request.

## Company, Employee and Training Specifics

Please complete the following table:

Registered Heat Pump Vendor Company Name	
Employee Name	
Training Location	
Anticipated Training End Date	

## Acknowledgement and Signature

I have reviewed and understand all the information on this form and certify that the information I have provided is accurate.

Registered Heat Pump Vendor Company Representative Name	
Signature	
Date	

Please submit request by

Email: [hesp2@csgroup.com](mailto:hesp2@csgroup.com) OR Fax: 207-622-9933 OR Mail: 66 Winthrop Street, Suite 2, Augusta, ME 04330-5506