

Geothermal Heat Pump Training offered By Coastal GeoExchange, LLC May and June 2013.

The following is a description of six courses/workshops that are offered this spring. Preliminary location and courses have been scheduled. Additional Courses will be provided as determined by the response to this offer. Each course is will used ClimateMaster Literature and Software and will reference ClimateMaster Equipment. The courses discuss the fundamental of Geothermal Heat Pump System that are applicable to most major geothermal Heat Pump Manufacturers. Details of controls and equipment will vary.

Geo Chat – Introduction to ClimateMaster Tranquility Digital Geothermal Heat Pumps Their Features and capabilities. How they compare to earlier models and save energy. A 2 hour Session – For Dealer Management and Estimators, Technicians that desire an overview of the current ClimateMaster Digital Geothermal Heat Pumps. This is an introduction and there is no charge. - Coffee will be provided.

Don Easson, PE - General Manager of Coastal Geo Exchange will conduct this training. Don is a ClimateMaster factory certified Instructor. Coastal GeoExchange is an independent Distributor of ClimateMaster Products.

Software Tools, System Design, and Sales Training – 4 hours – Typically 8 AM to 12 PM. For Estimators, designers and anyone interested in understanding and designing Geothermal Heat Pump Systems. ClimateMaster, the world’s largest manufacturer of Water Source Heat Pumps has developed a set of easy to use programs that enable dealers to size Geothermal Heat Pump Systems and develop winning proposals. The proposal software is based on a good, better, best approach that enables home owners to consider their replacement and new construction options in an economy of rising utility costs. These tools clearly show the economic advantage of Geothermal Heat Pumps in an easy to use format. This training will open up a new market and enable you to differentiate your company.

Our intent is to provide tools and training for HVAC Contractors. The cost of this course is \$75 to be paid in advance. This includes all necessary software, manuals and training aids and tools; in addition to the meeting room and lunches. We are confident that you will find the course beneficial. If not, we will refund your course fee. If the course fee is a hardship please call. Please call or email your registration and payment information to Don Easson – 843-227-1501.

Residential Product - Service and Installation Workshop Core Training – Technician – 8 hour –

Typically 8:00 AM to 5:00 PM – ClimateMaster Factory Authorized Training. Don Easson, PE - CM Factory Certified Trainer, and General Manager, Coastal GeoExchange will conduct this training session at a locations specified. This training will provide tools, materials, and training to enable technicians to accurately install, trouble shoot and maintain ClimateMaster Residential Heat Pumps. This training focuses on ClimateMaster Water Source Heat Pumps, however, it provides sufficient background that a technician can maintain any current geothermal heat pump system and have confidence to discuss corrective action and systems options with home owners.

This Course is designed for heating and air conditioning contractors, Installation technicians and supervisors, maintenance technicians, engineers, and anyone who desires a complete working knowledge of the technology of WSHP or Geothermal Heat Pumps.

Training course content includes:

- Terminology / Unit Nomenclature / Designs
- Understanding of a Water Source Unit
- Pre-Installation Overview
- Installation/Start Up Overview (Packaged/Splits)
- Hot Water Generator Set Up
- Auxiliary Heater Overview
- Refrigeration Diagnostic's
- Unit Performance Checks
- Electronic Controls Overview
- Troubleshooting Overview
- Test & Certifications

Course will be provided at a cost of \$150 per approved attendee. This cost covers the cost of the training manuals and aids, Room and Meals.

Loop Training Class – 8 hours- 8 to 4 PM -

This class is intended for Geothermal Heat Pump Installers/Contractors and Vertical Loop Contractors. Many Dealers and Drillers push back when it comes to the design and specification of a closed loop for a Geothermal Heat Pump System. “We let the Vertical Loop Installer take responsibility for that”. This is a dangerous since it is the HVAC Contractor that is ultimately responsible for the performance of the installed Geothermal System. Since many HVAC Dealers take this attitude this is a chance for Vertical loop Installers to develop their understanding and skills to design and an effective loop system and assure the successful installation of each system.

This full day class covers:

- Types of closed Loops.

- Configuration of Different types.
- Designing loops around variable speed pumps.
- Antifreeze for a closed loop.
- Software to calculate loop lengths and pressure drop for pump sizing.
- Open loop.
- Pressurized and non-pressurized flow centers.
- Troubleshooting closed loops.

In addition to these topics, Coastal GEO has been working with GEO-FLO and Wilo Pumps to understand and size variable speed pumps for multiple heat pump systems. I have slides from Wilo that explain the operation of their pumps. I am hoping to have a Wilo Pump representative join us for one of these sessions.

Bring your questions, and pump issues and we will work through them in the class. I have two of three multiple heat pump systems that we will work through. Each Student will receive three books of slides with examples and ample space for class notes.

Course will be provided at a cost of \$75 per approved attendees. This cost covers the cost of the training manuals and aids

DXM2 Controls and V Flow. 6 hours

This class will use a DXM2 Board Simulators will have at least two simulators for the class. This will provide each student with hands on time with the DXM2 Controller. This Workshop will cover:

- Features and Components, their location and function and energy savings.
- Tranquility Digital Splits
- DXM2 Startup with Service Tool- ACDU01
- ATC32U01 Communicating Thermostat
 - Initial Set Up and Configuration
 - Manual Mode
 - Unit Performance Analysis with Service Tool & Thermostat

Course will be provided at a cost of \$100 per approved attendees. This cost covers the cost of the training manuals and aids

Water-to-Water Heat Pumps and Water Heating Applications Workshop – 4 hours – Typically 1 PM to 5 PM. ClimateMaster Factory Authorized Training. Don Easson, PE - CM Factory Certified Trainer, and General Manager, Coastal GeoExchange will conduct this training session. This training will provide tools, materials, and training to enable technicians to accurately

install, trouble shoot and maintain ClimateMaster Water-to Water Geothermal Heat Pumps and trouble shoot water heating applications.

This Course is designed for heating and air conditioning contractors, Installation technicians and supervisors, maintenance technicians, engineers, and anyone who desires a complete working knowledge of the technology of WSHP or Geothermal Heat Pumps.

Training course content includes:

- Why Hyronics?
- Water-to- Water Heat Pumps
- Heat loss & Heat Gain Calculations
- System Components
- Load Side Systems for Water Heating:
- Applications: Water Heating, Pool Heating
- Test and Certification.

Course will be provided at a cost of \$75 per approved attendees. This cost covers the cost of the training manuals and aids.

Preliminary Training Dates and Locations:

My initial plan is to provide three days of training in Bluffton, Charleston and Atlanta.

Bluffton – Hampton Inn at Sun City:

- Core Module May 2,
- Loop Module May 3 or 22;
- DXM2 and Selling GEO May 23

Charleston, Fairfield Inn & Suites Charleston Airport/Convention Center:

4841 Tanger Outlet Boulevard
North Charleston, SC 29418
(843) 300-3100 marriott.com

- Core Module May 10,
- Loop Module May 31;
- DXM2 and Selling GEO May 30

Atlanta –at the LaQuinta Inn and Suites at the Medical Center - Perimeter Area,

- Core Module June 5,
- Loop Module June 6;
- DXM2 and Selling GEO June 7

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Registration for ClimateMaster Geothermal Work Shops

Please indicate your interest and the number of attendees in each box. Based on the interest expressed we will confirm course and purchase material and tools. We need at least six participants to conduct a course at the prices stated. The above training is arranged and sponsored by: Coastal GeoExchange, LLC, and an Independent ClimateMaster Distributor: Contact Don Easson for more information and registration – 843-227-1501

- DXM2 and Selling GEO** **Software Tools, Design, and Sales** **PE Pipe Socket Fusion**
 Core - Service & Install- **Loop Training** **Water-to Water Systems**

Name: _____, email _____

Company: _____, Phone: _____

Please Go to www.CoastalGeoExchange.com or email the above information to: doneasson@aol.com or FAX – 866-410-7885. Questions: Call 843-227-1501.

For Information on ClimateMaster Products:

www.climatemaster.com

And the New Dealer Website:

www.cmdealernet.com