

Geothermal Vertical Loop Installer Course Outline

Course Topics:

Drilling Methods for Geothermal Vertical Loop Installations

Thermal Enhanced Grouts: Requirements and Procedures

Learn how a Site Survey can Increase Your Profits

How to Conduct a Site Survey and What Documentation is required

How a Geothermal Heat Pump (GHP) Works

- GHP System Components and How they Function
- Learn about Basic Refrigeration - The Foundation of GHP Operation
- How to Calculate the Optimum Operating Water Flow Rate for Efficiency
- How to Calculate the Amount of Heat Available in the Ground For Extraction/Rejection

Closed Loop Design Basics - How Is Ground Energy Transferred - Ground To Building and Back Again

- Flow Controller
- Parallel vs. Series Configurations
- Header Design
- Inside Piping
- Vertical Loop Piping Installation & Testing
- Closed Loop Pressure Drop Calculations

Flushing the Earth Loop - In many ways the "Most important part of the Installation Process"

- Learn The Proper Flushing Procedure and How It Can Make Your Job More Profitable; Typical Flush Carts, Valve Positioning and Flushing, Antifreeze Selection & Charging, Pump Replacement Procedure

Computer Design Basics - GeoDesigner Software Overview

Drillers Who Successfully Complete the Two-day Training May Obtain the Following Certifications / Recognition:

- ClimateMaster Certificate of Participation (Test Required)
- Membership in ClimateMaster's Preferred Vertical Loop Installer & Dealership Network
- Inclusion on ClimateMaster's Find-a-Preferred Driller Website Listing
- Socket Fusion Certification
- Access to ClimateMaster's GSHP Loop Installation Experts

INSTRUCTOR:

The course is taught by Dave Pergel, a ClimateMaster Lead Trainer and Senior Field Systems Engineer. Dave has drilled and installed Ground Source Heat Pump HVAC systems for over twenty years.

