



**U-BEND PIPE SEPARATOR**  
FOR RESIDENTIAL AND COMMERCIAL  
ENHANCED GEOTHERMAL VHE PERFORMANCE

**The Most Advanced Technology  
in Geothermal Vertical Heat  
Exchangers**

800.588.0608  
[www.GEOCLIP.com](http://www.GEOCLIP.com)



ENHANCES VHE PERFORMANCE



The GEOCLIP®, distributed by GBT, Inc., is a u-bend pipe separator designed to enhance vertical heat exchanger (VHE) performance in both residential and commercial

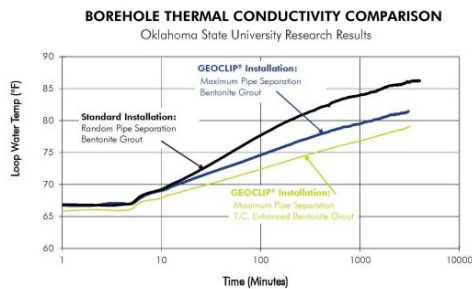
geothermal wellfield installations.

GEOCLIPs can increase performance by:

- Optimizing u-bend pipe placement within the borehole
- Eliminating the insulating effects of bentonite-based grouts
- Providing maximum separation within the borehole
- Reducing installation costs by shortening required VHE design lengths.

FIELD-PROVEN—INDEPENDENTLY TESTED

Independent research performed by GBT, Inc. and independent testing facilities indicates that positioning u-bend pipes at the borehole wall directly across from one another, significantly increases the heat transfer rate of the vertical heat exchanger over a standard installation, regardless of the backfill or grouting material used.



The graph above illustrates the results from a thermal conductivity test performed by Oklahoma State University. This test verifies that there is a substantial increase in the heat transfer rate with GEOCLIP installations when compared to standard installations.

SIMPLE INSTALLATION

The GEOCLIP easily snaps onto the u-bend and tremie pipes locking the assembly into the smallest configuration possible for ease in borehole



GEOCLIPS are fastened to the u-bend assembly at 10' intervals and attached or during u-bend insertion.



Once the u-bend and tremie assembly is inserted to its desired depth, grout is pumped through the tremie pipe.



During the grouting procedure, the tremie pipe is pulled out of the borehole which then releases the spring activated GEOCLIPS.



The GEOCLIP pushes the u-bend pipes to the borehole wall positioning the pipes directly across from one another.



The GEOCLIP is protected by US Patent No. 6,000,459.

