



Design Request

RAUGEO™ Ground Loop Heat Exchanger

1. Customer information

Company name:
 Contact name:
 Contact email: Contact phone:

2. Project information

Design proposal due date: Project install date:
 Project name:
 Project location (city, state/province):

3. Heating and cooling loads (check one) - to be provided by the customer

Peak and annual loads (least accurate)

Peak loads are typically generated using the procedure set forth in *ACCA Manual J* or the *ASHRAE Handbook of Fundamentals*. **Peak** loads are the least accurate input for a geoexchange loop field design and not suggested for commercial projects. **Annual** loads may be calculated using additional software such as Elite Software's *Energy Audit*.

Cooling

Peak cooling load: kBtu/hr
 Annual cooling load: kBtu

Heating

Peak heating load: kBtu/hr
 Annual heating load: kBtu

Monthly loads (more accurate)

Monthly loads require a more comprehensive analysis of a building's annual energy needs. As such, they yield a more accurate ground loop design. Monthly loads include the peak heating and cooling loads for each month, as well as the total heating and cooling loads. Software programs most frequently used for this kind of analysis include *Trane® TRACE*, *IES Software and Carrier® HAP*. If monthly loads have been generated, attach the output to this design request form or send the digital file directly to the REHAU geoexchange designer.

Hourly loads (most accurate)

Hourly loads yield the most accurate ground loop design, since they are able to detail the building's energy consumption on an hourly basis throughout the year. Software programs capable of generating an hourly load profile include *Trane® TRACE*, *IES Software and Carrier® HAP*. If an hourly load simulation has been run, send the digital file directly to the REHAU geoexchange designer.

4. Geoexchange source information

Vertical system

U-bend:	Single u-bend	Double u-bend	Borehole diameter:	in./	cm
Grout TC: (Btu/hr·°F)	0.44	0.88	1.0	1.2	Other

Horizontal system

Pipe configuration:	Straight	Horizontal slinky	Vertical slinky
Usable land space:	ft ² /	m ²	

Engineering progress Enhancing lives

5. Geology information

Thermal conductivity: Btu/hr·°F Diffusivity: ft²/day m²/day

If no thermal conductivity test is available, please select the site geology:

Sand	Clay	Basalt	Siltstone/Claystone	Limestone
Gravel	Loam	Andesite	Granite/Quartz	Sandstone
Silt	Pumice	Shale	Schist	

Water table level: ft/ m

6. Heat pump/fluid data

Manufacturer: _____ Type: _____
 Heating/cooling output: Btu/hr / Btu/hr COP/EER: /
 Type of antifreeze: _____ Percent of antifreeze: _____
 Max. entering water temperature (cooling) °F °C Min. entering water temperature (heating): °F °C
 Flow rate required for all heat pumps: _____ gpm

7. Attachments

To receive a design proposal, you must submit on of the following documents (indicate with check):

- Sketch or AutoCAD drawing of loop/borehole area with primary dimensions
- Geological survey or formation thermal conductivity test report
- Load calculations

Sent via email to:

8. Notes

Any specific information or specific design criteria to be followed must be provided before REHAU starts the design process. (E.g., maximum borehole depth, available real estate, etc).

9. Contact information

Email your design information to the REHAU sales region nearest you. For more information visit: www.na.rehau.com/design

US Sales Region	Email	Canadian Sales Region	Email
Midwest	designs.mpls@rehau.com	Western	designs.van@rehau.com
Mid-Atlantic/Northeast	designs.lee@rehau.com	Eastern	designs.tor@rehau.com
South	designs.lee@rehau.com		
West	designs.la@rehau.com		

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Customer signature: _____

Date: _____

REHAU Contact: _____

Sales region: _____