FeBTU Cell

The FeBT Cell is a unique assembly that carries potable water and operates as a geoexchange.

FeBTU Cell, by Footprint Engineering Inc., is a non-load bearing, structural round steel section that is sealed to the surrounding ground and installed by the deep foundation industry. When necessary, it can be used as a FeBTU Pile which is load bearing.

The FeBTU Cell It comes in 4 cell types, a Helical, a Micropile, a Driven Pile, and a Caisson Pre-Drill pile.

The FeBTU Cell operates as a geoexchange in both cooling (returning warm water) and heating (returning colder water) from a heat exchanger system installed within a heated building. A program algorithm creates smart wells that turn on and off, as well as, vary flow rates (CFM) of the potable water. The FeBTU Cell is highly conductive and is used primarily in areas with a high-water table to increase geoexchange efficiency. Smart wells help avoid ground freezing and ground heating, to further extend the lifecycle of geoexchange.

Typically, the FeBTU Cell is installed in 20 feet (6M) of water table, to a total depth of 60 feet (18M). Under low friction insulated piping, this water volume results in a coefficient of performance (COP) of 5- 10. This provides economical cost with high productivity rates, allowing for better project schedules and less need for mud drilling. A FeBTU Cell installed at 60 feet by a foundation contractor can, in many cases, outperform a 400 feet deep geoexchange over time.

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* Feng has trademark applications for FeBTU Cell and FeBTU Pile