

ISCO GEOTHERMAL

CIRCUIT MAKER VAULT® A TOTAL COST COMPARISON

It is important to understand the total cost of a geothermal vault installation in order to make the most informed system choice. The ISCO Geothermal Circuit Maker Vault® is the best choice for your geothermal system when the return on investment is critical to the overall success of the project.

The Circuit Maker Vault® is a pre-fabricated polyethylene structure that is 100% leak-free. ISCO's team of engineering experts can design the vault to your specification to help minimize field installation time that adds hidden costs with other vault structures. The Circuit Maker Vault® is delivered with a fully fused and assembled manifold with all circuits ready for connection on site. Other vault structures require additional work and labor prior to beginning circuit connection.

Below is an example of the total cost to install an ISCO Circuit Maker Vault[®] when compared to typical concrete vault structures.

	Circuit Maker Vault®	Pre-Formed Concrete	Pre-Cast Concrete	Poured in Place Concrete
Purchase Price*	\$25,000	\$25,000	\$7,000	\$0
Crane Rental	1 Day - \$2,000	1 Day - \$3,000	3 Days - \$9,000	\$0
Labor- Core Holes	\$0	\$0	\$2,000	\$2,000
Labor - Link Seals	\$0	\$0	\$1,000	\$1,000
Manifold Assembly	\$0	\$0	\$14,000	\$14,000
Additional Concrete	2 Yds \$300	12 Yds \$1,800	\$0	30 Yds \$4,500
Structure Assembly	\$0	\$0	\$0	\$15,000
Total Cost	\$27,300	\$29,800	\$33,000	\$36,500

As the above table shows, the total cost to install the ISCO Circuit Maker Vault® is the best value when compared to total costs of different concrete vault options.



Variable cost items, such as larger crane rentals required by the heavier concrete structures and additional field labor, make the ISCO Circuit Maker Vault® the smart choice.

Consideration should also be given to the structural limitations of a concrete vault, which include:

- 1. The natural tendency of any concrete structure to crack over time. It is not a matter of if concrete will crack but to what degree the damage will cause problems with your system.
- 2. Concrete stuctures will corrode. This is especially prevalent in water applications where significant structural damage can occur and result in major leakage issues. Concrete vaults are not ideal in areas with high water tables.
- 3. Concrete structures are not recommended for use in applications where soil can shift over time and are especially risky in areas that may experience seismic activity.
- 4. Concrete structures are very weak under tension. A concrete vault structure requires special bracing and reinforcement in order to overcome this limitation. If the integrity of the structural support is compromised over time, the result could be a significantly weakened structure.

The decision to use natural geothermal resources is an important one and will ensure that you maximize energy savings in an environment of rising costs. When making your choice in geothermal vaults consider the total cost implications and structural integrity to protect your return on investment. The ISCO Circuit Maker Vault® has a high quality reputation in the industry and ISCO is proud to have successful installations and satisfied customers throughout North America.



For more information on the ISCO Circuit Maker Vault® contact your local geothermal ISCO sales representative at **1-800-345-ISCO (4726)**.



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