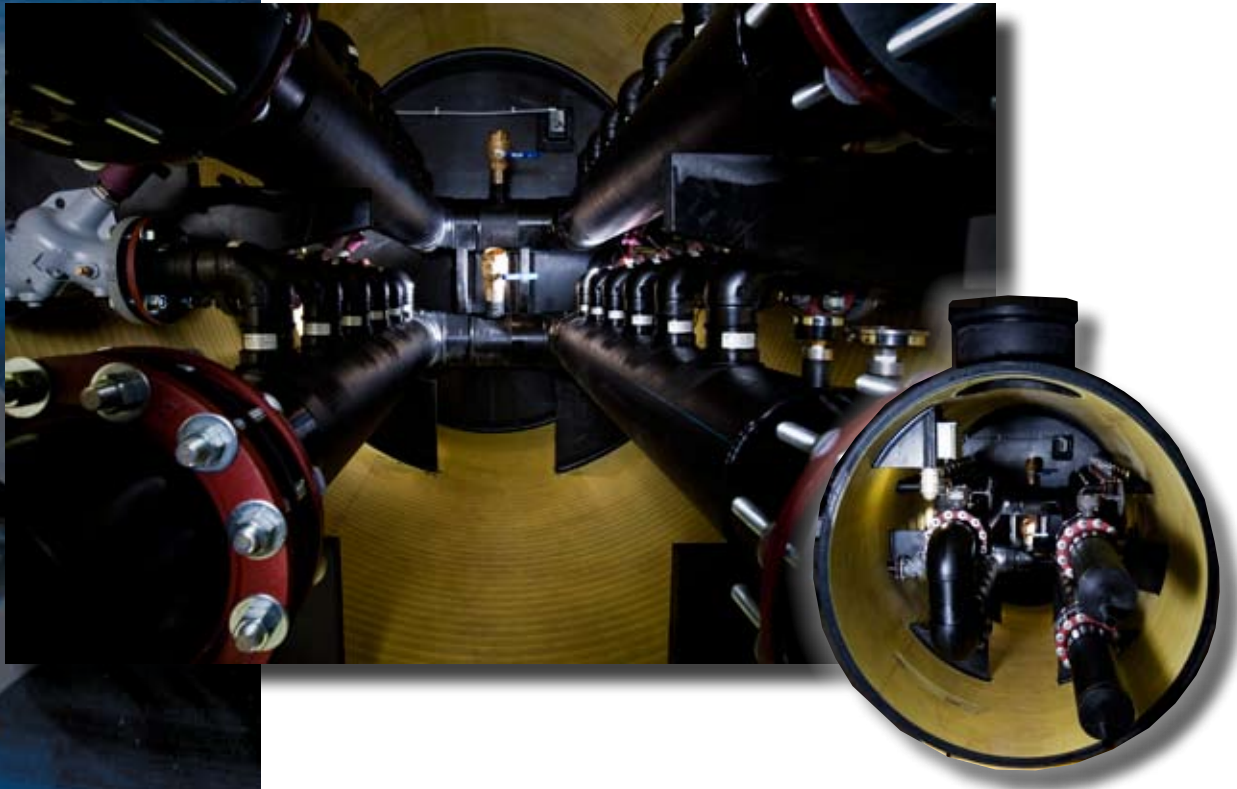


**Your one stop source for
pipe, fittings, equipment,
custom fabrications and
technical support**

ISCO Geothermal System Solutions



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G E O T H E R M A L

System Solutions



Geothermal well field with ISCO Circuit Maker Vault®



ISCO Industries

ISCO Industries was founded in 1962 and has grown into North America's largest supplier of high-density polyethylene (HDPE) piping systems. As the leading supplier of HDPE fabricated systems, pipe, fittings, fusion equipment and "know how," ISCO can assist you with your specific piping needs. Whether you are an engineer, end user, public utility, installer, contractor, homeowner or business owner, ISCO has the experience to develop a solution to match your request.

ISCO's Geothermal division is comprised of the most knowledgeable team in the industry, with many years of experience in designing geothermal products and systems. ISCO has a team of dedicated engineering experts working continuously to improve the current geothermal product offering and a dedicated geothermal sales team to provide customer field support across the country.

Geothermal Energy

Geothermal energy is a safe, renewable energy that is stored within the earth. The earth maintains a constant temperature below the surface and energy can be harvested from this natural source to efficiently heat and cool your building. When properly designed, a geothermal heating and cooling system can significantly reduce overall operating costs and waste byproducts. The use of geothermal energy has grown exponentially over the past twenty years and is strongly supported and endorsed by

the United States Department of Energy and the Environmental Protection Agency.

You can efficiently capture this source of energy by creating a series of horizontal or vertical loops underground. The loops are filled with water or a water based liquid and connected to a heat pump inside the building. The heat pump circulates the liquid through the ground loops creating a heat exchanger that is more efficient than any alternate heating or cooling method.

ISCO custom fabricated Circuit Maker Vaults®, are the central control point of a geothermal well field.

ISCO custom-fabricated Circuit Maker Geothermal Vaults are strong, leak-free structures that keep your valve systems and other equipment clean and safe to protect your investment. Our fabricators are true craftsmen, skilled in finding solutions to even the toughest design challenges.

ISCO Circuit Maker Geothermal Vaults feature:

- Custom fabrication to your specifications
- 100% Leak-free polyethylene structure
- Custom walkways available to your height specifications
- Butt-fused circuitry with **Datalogged** joints
- OSHA-Compliant access ladder
- Choice of metal or polyethylene valves
- Pressure temperature (P/T) ports on all outlets
- Quick pressure test of individual circuits for quality assurance
- Easy purging and isolation of circuits
- Plastic cap retainers for protection during shipment
- H-20 (Highway Traffic) load rating capability

Complete your geothermal installation with the best vaults available - delivering top performance, dependability and long life.



Other geothermal products and services include:

- HDPE Pipe, Fittings & U-Bends Stocked Nationwide
- Custom Fabricated Headers & Manifolds
- McElroy Fusion Equipment Sales, Rental, Refurbish & Service

**The protection you need.
The quality you demand.**

ISCO Industries Geothermal Products

Fabricated Headers

ISCO fabricates custom headers for commercial and residential needs. Prefabricated headers reduce the number of fusion joints, which in turn reduces expensive field time and labor.

Unicoil

ISCO stocks and sells pre-Fused polyethylene U-Bend Coils for efficient, reliable installation. Unicoil is a pre-fused polyethylene u-bend coil which is factory pre-fused to two coils of HDPE pipe. Unicoils are available in 3/4" to 1 1/4" diameters and in standard and special size lengths.



HDPE Pipe and Fittings

ISCO sells all the HDPE pipe and fittings needed for a complete Geothermal System. HDPE pipe is available in 20', 40', or 50' lengths. Coils are available in 3/4" to 2" diameters and in standard and special size length.

Sand and Grout

ISCO stocks a full line of Grout and Sand at multiple locations through out the United States. GeoPro Bentonite based grout is a thermally enhanced two-part grout engineered for closed loop systems. Grouting the borehole ensures proper heat transfer and protects your potable water source. Sand is pre-qualified to ensure that it is a high-grade silica sand that will also meet your thermal conductivity requirements.

Technicians and Training

ISCO provides on-the-job training for your crew. ISCO also has field fusion technicians available to help with complete installation of your geothermal system. ISCO is your primary source for fusion training, including, butt fusion, electrofusion and socket fusion.

Connections in the Field: Socket Fusion, Electrofusion, Butt Fusion

ISCO is your primary source for each of three of the most common methods of connecting an HDPE geothermal system in the field.

Socket Fusion Tooling – ISCO stocks and sells all socket fusion tooling including heaters, heater adapter sets, chamber tools, and cold ring tools.

Electrofusion – ISCO stocks and sells electrofusion couplings and processors nationwide for connecting HDPE pipe in the field.

Butt Fusion – ISCO sells, rents and refurbishes equipment ideal for the job, such as the #14 McElroy Pitbull, the #2LC McElroy machine, as well as other McElroy units.

Other Available items

Purge Pumps

ISCO also sells the power needed to purge the air and debris from residential and commercial loop fields efficiently. Purge Pro is capable of producing 69 GPM at 80 ft head, making your purging jobs quick, easy and affordable.

Gauge Adapter

The sturdy stainless steel probe construction provides optimal quality and durability. An optional aluminum probe guard is also available.

Geothermal Underground Detectable Tape

Special features include:

- 4.3 Mil Polyethylene Material
- 2" x 1000' Rolls
- Detectable to a depth of 18" with a common metal detector
- Easy to see blue tape with white ink
- Prevent unwanted excavation damage to horizontal earth coils and closed loop systems
- Ideal in both commercial and residential applications where future excavation may be required



ISCO Industries is a proud member of the International Ground Source Heat Pump Association (IGSHPA).

