Designers and Manufacturers of
DURABLE, HIGH-EFFICIENCY INDUSTRIAL THERMAL FLUID HEATERS

Creating Reliable, American-Made Industrial Heating Equipment for Over 30 Years
SERPENTINE COIL HEATERS vs. HELICAL COIL HEATERS

There are distinct differences in the coil arrangement of serpentine coil thermal fluid heaters and traditional helical coil hot oil heaters. While helical coil heaters feature helically wound coils, our serpentine coil heaters feature serpentine radiant coil bundles, as can be seen in the diagrams below.

In the radiant section of the heater (A), heat is transferred to the front, sides, and back of the serpentine coil. With helical coil tubes, heat is transferred by direct radiation on the inside surface of the coil only. As a result, the serpentine coil design allows for more even heat distribution, less oil degradation, longer tube life, and higher operating oil temperature.

In the convection section of the heater (B), convection occurs only on the outside surface of helically wound coils, but is transferred to a much larger surface area in a serpentine coil heater. This reduces stack temperature and makes the serpentine coil hot oil heater significantly more efficient.

HOT OIL HEATING vs. STEAM HEATING

Weighing the options of hot oil and steam heating for your facility? Steam heating has been the choice for many applications over the years, but hot oil is actually the better choice in many scenarios. Advantages of hot oil heating over steam heating include:

- No Need for Pressurization
- No Corrosion
- No Chemical Regulation Required
- No Steam Traps or Frozen Lines
- No Need for a Licensed Boiler Operator
- Higher Operating Temperatures
- Increased Safety
- Increased Efficiency
- Less Capital Required
Is your facility struggling with process fluid degradation, tube failures, high stack temperatures of greater than 800°F, limited operation at fluid temperatures above 400°F, high fuel costs, high operational costs, or high maintenance costs?

If so, it’s time to consider a [high-efficiency serpentine coil thermal fluid heater from American Heating Company](#).

Our unique serpentine coil heater design can eliminate all of the problems listed above, providing you with a fuel-efficient heating solution that can help you maximize your productivity and profitability.

**Benefits of our serpentine coil thermal fluid heaters include:**

**Low Levels of Fluid Degradation**
Our serpentine coil design allows for more even heat distribution, which means that your heating fluid will last significantly longer.

**Long Tube Life**
Serpentine coils typically last many times longer than standard helical coils. While tube failures are common in helical hot oil heaters, it’s not uncommon for serpentine coils to last for decades!

**Higher Operating Temperatures**
While traditional hot oil heaters offer limited operation at fluid temperatures over 400°F, our serpentine coil hot oil heaters can operate efficiently at temperatures up to 650°F with the proper fluid.

**Low Flow Rates**
Our unique heater design allows for lower flow rates than most heaters on the market. This reduces the size of the piping and valves used throughout the system and decreases the necessary amount of pump horsepower, reducing overall system and operational costs.

**Higher Efficiency Than Helical Coil Heaters**
Our serpentine coil heaters are 10 to 15% more efficient than hot oil heaters that feature helical coils. This can save your facility thousands of dollars per year.

**Minimal Maintenance**
Our serpentine coil thermal fluid heaters require minimal maintenance. When coil maintenance is necessary, the coil can be removed and a tube can be repaired or replaced, typically in less than one day.

If you’re looking for a reliable industrial hot oil heater that resolves most of the issues your plant has been experiencing, our [serpentine coil thermal fluid heater](#) may be the answer.
ADDITIONAL KEY BENEFITS OF OUR INDUSTRIAL HOT OIL HEATERS

In addition to the benefits listed on the previous page, our thermal fluid heaters also provide the following advantages:

- Durability
- Lower Flux Rates
- Increased Combustion Volume
- Reduced Volumetric Heat Release
- Larger Surface Area
- Increased Corrosion Allowance
- Fully Modulating Heater Controls

These features make our heaters efficient, cost-effective, and some of the longest lasting on the market, with many of our heaters lasting upwards of 30 years.

We’ve spent decades refining our serpentine coil thermal fluid heater design. We’re proud to offer reliable, long-lasting hot oil heaters that keep our customers’ operations running smoothly and efficiently.

ABOUT AMERICAN HEATING COMPANY

For more than 30 years, American Heating Company has been designing and manufacturing high efficiency industrial heating equipment for a variety of industries and applications. Our products are made in the USA and built according to strict performance and efficiency standards.

Interested in learning more about our industrial thermal fluid heaters? Think an American Heating Company hot oil heater might be right for your facility? Call us at (973) 777-0100, email us at info@americanheatingco.com, or visit www.americanheatingco.com for more information!
HOT OIL HEATER APPLICATIONS

Our hot oil heaters and thermal fluid heating systems are built to meet rigorous performance and efficiency standards. They feature state-of-the-art designs and require minimal service and maintenance, making them ideal for use in a variety of industries, including:

- Algae & Biofuel
- Asphalt & Roofing
- Biodiesel
- Chemical
- Food & Beverage
- Hospital
- Laundry
- Refinery & Crude Oil Production
- Tank Terminal
- Wastewater Treatment

All of our thermal fluid heaters are custom designed to meet the specific needs of our customers. American Heating Company hot oil heaters are well suited for a wide variety of applications, including:

- Asphalt Heating
- Chemical Process Heating
- Petroleum Refining
- Tanker & Barge Heating
- Rubbers, Plastics & Paper Processing Heat
- Synthetic Fiber Production
- Surface Coatings Curing
- Alkyd Paints & Resin Kettle Heating
- Lube Oil & Fuel Oil Heating
- Metal Treating
- Space Heating
- Food & Beverage Facility Heating

No matter the industry or application, with American Heating Company machinery in place you can be confident that your plant will run smoothly and efficiently, allowing you to maximize your profits and increase your productivity.
American Heating Company Engineering Services:

We offer a complete spectrum of services for all of your plant and facility needs. Our services include:

- Evaluation of Heat Requirements of Your Plant
- Design of Complete Heating Systems
- Sizing of Process Fluid Lines
- Project Management
- Energy Surveys
- Pumping Requirements
- Piping Drawings

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