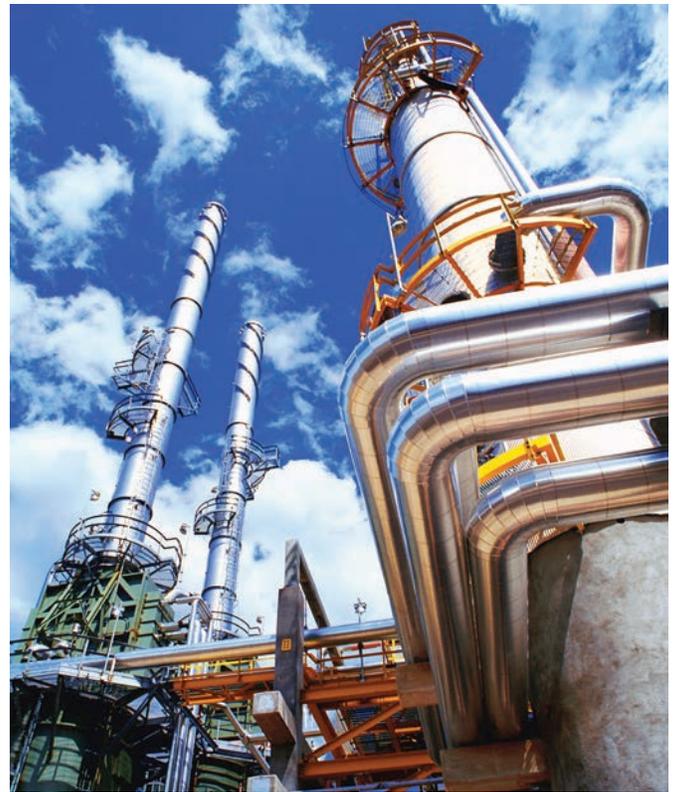


Watlow's High-Performance Thermal Solutions Help Reduce Downtime and Maximize Productivity of Your Process Applications

Watlow® is the industry leader in providing advanced heating, sensing and control solutions for the processing industries. Our comprehensive line of electric process heaters, temperature sensors and temperature controllers are in stock and ready to be shipped on a moment's notice, allowing you to get back to full productivity quickly. Partnering with Watlow provides the convenience of a highly responsive and experienced supplier that can minimize project complexity, decrease downtime and lower overall system costs.

For over 50 years, Watlow has supplied thermal system solutions for a variety of applications. Our engineers work hand-in-hand with your technical staff to quickly generate detailed proposals with clear descriptions allowing your resources to focus on the most critical aspects of the job to achieve maximum productivity. We utilize robust design and fabrication techniques to ensure optimal system performance and longevity. Watlow offers the knowledge, resources and experience to get your processes up and running again quickly because downtime is our common enemy.



Typical Applications

- Process heating manufacturers
- NOx (Nitrous Oxide) control
- Concentrated solar power
- Aerospace
- Agricultural
- Environmental
- Furnaces and ovens
- Industrial cleaning
- Medical equipment
- HVAC
- Semiconductor
- Waste water treatment
- Commercial food equipment

Tubular Heaters

Watlow's round WATROD™ and flat FIREBAR® tubular heating elements are designed for a broad range of direct immersion heating applications such as water, oils, solvents, process solutions and molten materials as well as air and gases. By placing the heater directly into the media, these heaters are virtually 100 percent efficient. A wide variety of sheath types and diameter sizes can be bent and formed into nearly any shape to place heat exactly where it is needed. WATROD and FIREBAR elements are available in both single and double-ended options and carry UL® and CSA component recognition to ensure safe operation.



MULTICELL™ Heaters

Watlow's MULTICELL™ heater is the industry leader for extreme temperature applications. MULTICELL's advanced design with up to six independent control zones is engineered to achieve sheath temperatures up to 2050°F (1120°C). Heater zoning, and up to three internal thermowells, provides precise temperature uniformity as well as a loose fit design enabling easy installation and removal from platens and insertion holes.

Screw Plug Heaters

Watlow screw plug heaters are ideal for direct immersion heating of liquids, air and gases. WATROD round or FIREBAR flat heating elements are hairpin bent and attached to a 1, 1¼, 2 or 2½-inch size NPT screw plug depending on the sheath and plug materials. General purpose enclosures are standard with optional moisture resistant, explosion resistant and moisture / explosion resistant enclosures available. Optional thermostats and thermowells are also available for accurate temperature control.



Circulation Heaters

Watlow circulation heaters provide a convenient, ready-to-go means of providing electric heat by combining the heating elements, vessel, insulation, terminal enclosures, mounting brackets and inlet and outlet connections into a complete assembly. NPT screw plug or ANSI flange assemblies are mated with a pressure vessel (or tank) to heat forced circulation air, gases or liquids. Watlow circulation heaters are ideal for either in-line or side-arm operation and use WATROD or FIREBAR heating elements to deliver fast response and even heat distribution.

Flange Heaters

Watlow flange heaters are easy to install and maintain. Designed for heating liquids and gases in tanks or pressure vessels, flange heaters are ideal for applications requiring higher kilowatts and processing pressure. Watlow flange heaters are constructed with WATROD or FIREBAR elements brazed or welded into the flange and are equipped standard with a general purpose enclosure. ANSI and ANSI compatible flanges are available in sizes ranging from two-inch through 48-inch diameter with several terminal enclosure options also available including moisture resistant, corrosion resistant, explosion resistant and explosion resistant Class 1, Div. 1 and 2, Groups B, C, D, T1-T6.



Engine Preheaters

Watlow engine preheaters help maintain a desired minimum engine temperature to make cold starting fast and easy. Preheaters also reduce engine wear caused by cold engine starting, and mount conveniently on an engine or rail. An internal thermostat constantly adjusts to ambient temperature changes to keep engine coolant warm at all times. All Watlow engine preheaters come standard with a general purpose enclosure and are constructed with heavy-duty welded carbon steel tanks.

Booster Heaters

Watlow booster heaters are ideal for circulating applications requiring less kilowatts, including engine preheating. Watlow booster heaters are equipped standard with an integrated thermostat and constructed with a brass or steel, 1¼-inch NPT screw plug heater mated with an insulated pressure vessel. The vessel, which uses one-inch inlet and outlet ports, is fully welded and the exterior shroud is painted for corrosion resistance.



Duct Heaters

Watlow offers three types of duct heaters to meet all of your air heating needs. Watlow's LDH series of duct heaters are designed for higher temperature air heating (up to 800°F) and are constructed with sturdy 0.430-inch diameter alloy 840 WATROD heating elements welded into a ¼-inch steel flange. MDH series duct heaters utilize the same durable design and feature removable heating elements. Watlow's MDH line of duct heaters offer improved performance and increased versatility in medium to low temperature air heating. Individual heating modules are constructed with 0.315-inch diameter elements that are removable for easy replacement through the housing assembly.

Watlow's Industry-Leading Sensors and Controllers Optimize Thermal Performance and Reduce System Downtime

Watlow has decades of experience in designing and developing temperature sensing solutions for the processing industries. Our process sensors including thermocouples and RTDs are fast responding, durable and capable of handling high temperatures. They are also in stock, and can be integrated with our process heaters and controllers to provide fast and reliable thermal solutions.

Key features include:

- Superior dust and moisture resistance
- Resistant to weak acids, organic solvents, alkalines, sunlight and dust
- Sensor protection from high quality thermowells and pipe wells
- Positive contact

Watlow's temperature and power controllers offer solutions that reduce system complexity and lower the total cost of ownership for controlling the entire thermal loop. Watlow controllers, including Watlow's EZ-ZONE® controllers, DIN-A-MITE® power controllers and basic and limit controllers, are designed to resist the common causes of controller failure and deliver predictable, repeatable performance. Watlow controllers also offer a heater "bake out" mode to eliminate damage associated with moisture absorption.

Key features include:

- Easy set up
- High noise immunity
- Versatile output choices
- Industry standard process, thermocouple and RTD inputs

From heater assemblies and skid fabrication to integration with controllers and sensors, our complete engineered systems reduce installation costs, reduce start up time and ensure proper operation of the thermal system.



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UL® is a registered trademark of the Underwriter's Laboratories, Inc.

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