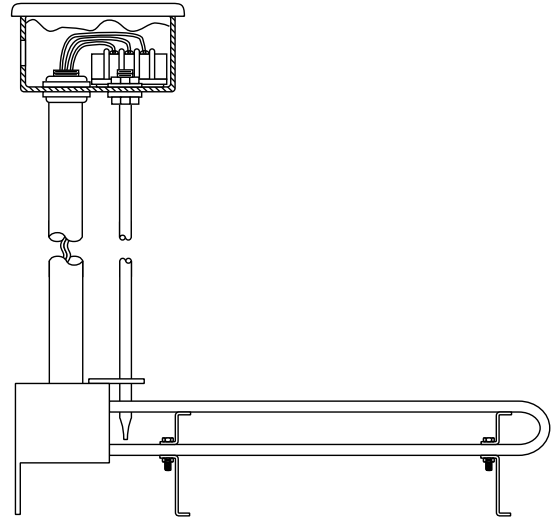


OVER-THE-SIDE HEATERS

Ideal For Heating Water, Oils, Solvents, Salts and Acids



Features

- Rugged, light-weight construction
 - Three 0.475 inch (12 mm) diameter WATROD heating elements
 - WATROD hairpins are repressed (recompacted)
 - Four inch (100 mm) sludge legs
 - RTV riser seal
 - Standard size 1-inch conduit openings
 - SRG insulated flexible lead wires rated to 390°F
 - Riser materials are compatible with element sheath materials; stainless steel with Incoloy® sheath; steel with steel sheath; all other wetted parts are stainless steel
 - Integral thermowells
 - Moisture resistant (NEMA 4) enclosures standard
 - UL® and CSA component recognition to 480VAC and 600VAC under files #E52951 and 31388 respectively
- ### Benefits
- Portable, allowing easy installation and removal
 - Offer 1 or 3-phase operation
 - Assures MgO density, dielectric strength, heat transfer and life
 - Keep heating elements off the tank's bottom to help avoid being covered with sediment
 - Prevents moisture from infiltrating electrical areas
 - Facilitate easy wiring to terminal enclosure
 - Allows safe application while in hot liquids
 - Compatible with material being heated
 - Provide convenient temperature sensor insertion and replacement
 - Provides safe operation in open tanks
 - Designed for safety

To provide portability, easy installation and removal, Watlow makes over-the-side heaters in three versions:

- "L" and "O" shaped
- Vertical loop
- Drum

These "installed-from-the-top" heaters slide easily into tanks, with the heated portion immersed along the side or at the bottom.

Over-the-side heaters are ideal for heating water, oils, solvents, salts and acids. Application versatility is enhanced with optional sheath materials, kilowatt ratings, terminal enclosures and mounting methods.

"L" and "O" Shaped Performance Capabilities

- Incoloy sheath element watt densities to 60 W/in² (9.3 W/cm²)
- Steel sheath element watt densities to 23 W/in² (3.6 W/cm²)
- Wattages to 50 kW
- Voltages to 600VAC



WATLOW
Watlow Industries

FAX-1946-056

A subsidiary of Watlow, Designer and Manufacturer of Industrial Heaters, Sensors and Controls
6 Industrial Loop Road
Hannibal, Missouri 63401 USA
Phone: 573-221-2816
Fax: 573-221-3723
Internet: www.watlow.com

Incoloy® is a registered trademark of the Inco family of companies.
UL® is a registered trademark of Underwriters Laboratories, Inc.

OVER-THE-SIDE HEATERS

Applications

- Water heating
- Freeze protection
- Viscous oils
- Storage tanks
- Degreasing tanks
- Solvents
- Salts
- Caustic solutions
- Paraffin

Terminal Enclosures

Moisture resistant (NEMA 4) terminal enclosures, without thermostats, are standard on all Watlow "L" and "O" shaped over-the-side heaters. Optional terminal enclosures meet application requirements with:

- Corrosion resistant (NEMA 4X). Available with or without a single or double pole thermostat.
- Explosion resistant (NEMA 7) class 1 groups C and D. Available with or without a single or double pole thermostat. For class 1, group B enclosures, consult your Watlow representative.
- Explosion / moisture resistant (NEMA 7/4) combinations. Available with or without a single or double pole thermostat.

Thermostats

Optional single and double pole thermostats are also available separately.

Thermocouples

ANSI Type J or K thermocouples offer more accurate sensing of process and/or sheath temperatures. A thermocouple may be inserted into the thermowell or attached to the heater's sheath.

Thermocouples are supplied with 120 inch (3050 mm) leads (longer lead lengths available).

Thermocouples require an appropriate temperature and power control. These must be purchased separately. Watlow offers a wide variety of temperature and power controls to meet virtually all applications. Temperature controls can be configured to accept process variable inputs, too.

Wattages and Voltages

Watlow routinely supplies over-the-side heaters in 240 to 480VAC as well as wattages from 3 to 18 kilowatts. If required, Watlow can configure heaters with voltages and wattages outside these parameters.

Multiple Elements

Over-the-side immersion heaters are configured with three WATROD heating elements.

To achieve a specific kilowatt rating, Watlow can configure units with up to 18 heating elements.

Sheath Material

Stock "O" and "L" shaped over-the-side heaters come with Incoloy or steel sheaths. 304 or 316 stainless steel and titanium sheaths are available upon request.

Passivation

During the manufacturing process, particles of iron or tool steel may become embedded in the stainless steel or alloy sheath. If not removed, these particles may corrode, produce rust spots and/or contaminate the process.

For critical applications, passivation will remove free iron from the sheath and other wetted surfaces.

Riser

A stainless steel or steel riser is supplied to keep terminal enclosures out of the heated solution. Stock heights are 39%₁₆ or 51%₁₆ inches (1000 or 1320 mm). Upon request, riser height up to 60 feet (18.3 m) can be provided.

Sludge Legs

Four inch (100 mm) sludge legs are supplied on all stock units to keep elements above sediments. Shorter or longer sludge legs are available upon request.

Man Hole Cover

A man hole cover seals the tank and provides heater mounting.

Man hole covers are pre-assembled to the riser. Standard man hole covers are made from steel with other materials available upon request.

Ordering Information

How to Order

To order a stock unit, please specify:

- Watlow code number (from Watlow Heater's Catalog)
- Volts / watts
- Phase
- Options
- Quantity

If our stock units do not meet your application needs, Watlow will provide Made-to-Order units. Consult your Watlow representative and provide the following information:

- Application
- Volts / watts
- Phase
- Number of circuits
- Watt density
- Number of heating elements and sheath material
- Options, including terminal enclosure type
- Quantity

Availability

Assembly Stock: 5-7 working days

Modified Stock ^①: 5-7 working days

Made-to-Order: 5-7 weeks

Options, complexity and quantity may affect availability and leadtimes. Consult factory.

^① Assembly Stock units with catalog options.