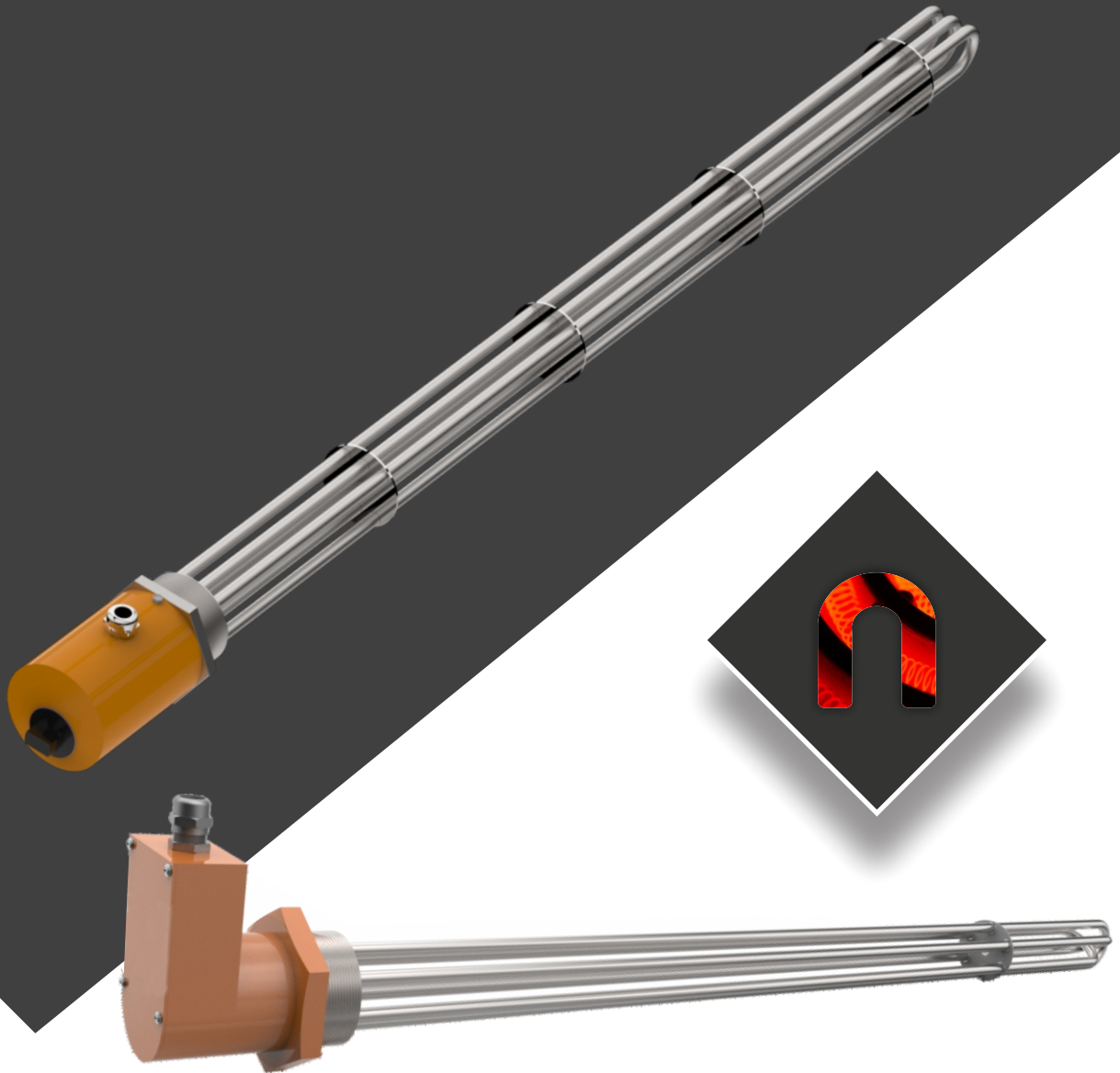


nobleheat™
Heating Technologies



AN ISO : 9001-2015 CERTIFIED CO.



SCREW PLUG

HEATERS

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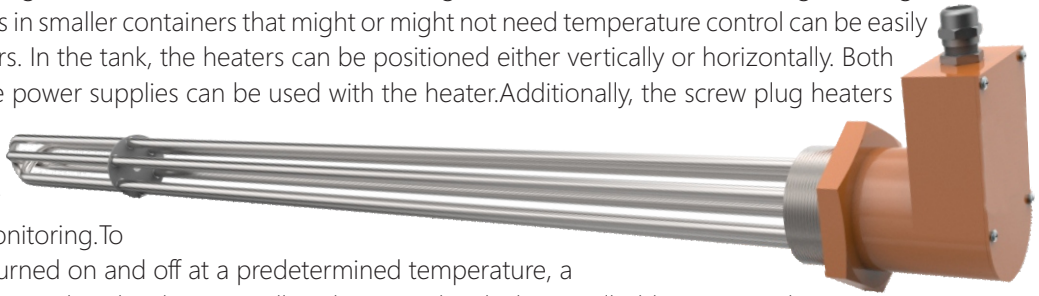
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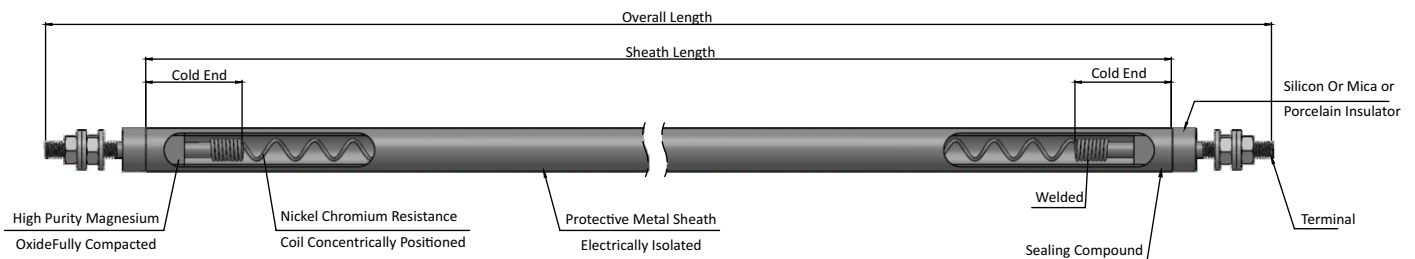


SCREW PLUG HEATERS :

are miniature versions of immersion heaters that use a threaded plug in place of the heater flange. A process line or tank wall can have one or more tubular heating elements that fit into a threaded hexagonal head and are screwed straight through a threaded connection. Solutions in smaller containers that might or might not need temperature control can be easily heated with screw plug heaters. In the tank, the heaters can be positioned either vertically or horizontally. Both single-phase and three-phase power supplies can be used with the heater. Additionally, the screw plug heaters come with a thermo well where a temperature sensor can be inserted for temperature control and monitoring. To guarantee that the heater is turned on and off at a predetermined temperature, a basic thermostat is typically put within the thermo well and prewired with the installed heater. For the operator's convenience, the thermostat knob can be positioned outside the terminal cover.



Construction



1. Nickel Chromium Resistance wire: Uniformly coiled wire is stretched through the active length of the element. The ends are proved with the terminal pins to create cold ends.
2. Magnesium oxide: High purity magnesium Oxide power is filled between the coil and outer tube in a automated filling station to ensure the right insulation, conduction as well as compactness.
3. Outer sheath: a Tube (welded or seamless) which acts as a outer protection for the heating Element. Selection of outer tube depends on various factors such as temperature, pressure, fluid to be heated etc.
4. Terminal pins: Also known as terminal pins are extended ends of the heating elements. The SS rods of a specific diameter are fusion welded to the coils at both ends. The length of the rod depends on the non heating length required for any application and installation.
5. End Sealing: Sealing is done using the combination of Ceramic beads, soft seals & sealants. The sealing ensures that no moisture from the atmosphere enters the heating element and keeps it dry. Sources and related content

If you have specific design needs or want to discuss a custom project, please reach out to us.

Technical Specifications

Sheath Material	SS , Alloy 600 series, Alloy 800 series, Hastelloy, Titanium, copper etc
Rating	0.1kW to 50kW
Screw Plug Material	Cl, Carbon steel, Brass, SS etc
Screw Plug NPT fittings	1", 1.1/4", 1.1/2", 2", 2.1/2", 3" (BSP/ NPT) or equivalent Metric threads
Voltage	120 to 690V AC Single phase or three phase
Terminal Enclosure	Safe / Hazardous
Control	Thermostat/RTD/Thermocouple.

Applications

- Crude oil / HFO / Lubricant Oil Pre Heating in the tanks.
- Clean Water heating.
- Alkaline and corrosive solvent heating.
- Water & other liquid Vaporizers.
- Gas heating Systems.
- Pre Heaters.
- Anti condensation heating in the motors.
- Oil pre heating in compression units.
- Solar water baths.
- Chemical heatings.
- Storage chamber heating.
- Small ovens¹

Advantage

- **Sheath selection datasheet:** The different sheath materials used in these heaters have different watt densities and operating temperatures.
- **Stainless Steel:** Maximum operating temperature is 1200°F INCOLOY: Maximum operating temperature is 1600°F.
- Efficient Heating and Reliable Design.
- Easy to insta.
- Easy to Regulate & Maintain.
- Lower Cost of Maintenance.
- Energy Efficient.

Note: Watt density depends largely on the fluid to be heated and it can vary anywhere between 0.7w/cm² to 15W/cm².