# Tubular Industrial Process

### **Deep Tank/Sump Immersion Heaters**

- 12 mm (0.475") Diameter Incoloy<sup>®</sup> Elements and Stainless Steel Wetted Parts Standard
- Designed for Permanent Installation in Outdoor/ Indoor Applications
- 0.61 to 3.6 m (2 to 12') Vertical Riser Height (for Thermostat Designs)
- Weathertight Mounting Hardware Supplied
- Riser Adjustable to Facilitate Mounting Variations
- NEMA 4 Electrical Enclosure with ¾" Conduit Fitting
- 38 mm (1½") Sludge Legs
- Double-Pole 16 to 121°C (60 to 250°F) Pilot Duty Thermostat
- Watertight Thermowell Sized for 9.5 mm (%") Maximum Diagram Sensing Bulb
- 120V, 208V, 277V, and 575V Versions Available (Contact OMEGA)

#### **Optional Features**

- 316 SS, Steel, or Copper Element Designs
- Passivation, Electropolished, or Bright Annealed Surface Treatments for Stainless Steel or Incoloy Designs (Elements Only)
- Custom or ASI Pressure Rated Flange on Riser for Mounting
- NEMA 1 or NEMA 4/7 (Explosion Resistant) Terminal Housings
- Alternate Single- or Double-Pole Thermostat
- Internally Mounted Definite Purpose Magnetic Contactor, Single Circuit Units Only
- RTD or Process Thermocouple in Thermowell in Place of Thermostat
- Hi-Limit Thermocouple on Element Sheath
- Special Riser or Sludge Leg Heights
- Right-Angle Riser Design for Offset Terminal Housing
- Up to 24 Elements Per Heater Assembly
- 1/32 DIN Temperature Controller, Internal or Panel Mounted on Terminal Housing and Used with Thermocouple or RTD Probe and Contactor for Heater Control

#### Application

These fluid immersion heaters are designed for top mounting in large or deep enclosed tanks having a manhole access or opening suitable to insert and attach the heater. They are usable for either outdoor or indoor applications, within exposed or in-ground tanks and sewerage sumps. They are designed for permanent mounting and can be sealed weathertight with supplied gaskets and adjustable riser fittings.

NEMA 4 terminal housing is easily removable and resealed to facilitate installation. Units are available with element watt densities from 6 watt/in<sup>2</sup> for heavy oils, to 60 watt/in<sup>2</sup> for clean water immersion applications. Element bundle diameters ranging from minimum of 254 mm (10") OD to a maximum of 762 mm (30") OD are available.

#### Construction

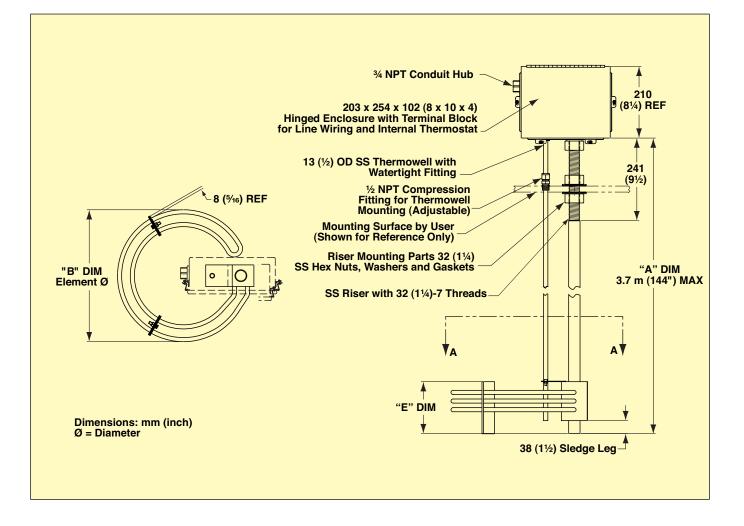
The tubular elements are welded into a submersible liquid-tight stainless steel junction box. Element power leads are routed up through adjustable riser pipe and connected to a terminal block inside the upper NEMA 4 terminal housing. Unless specified otherwise, heaters are factory wired for three phase and are easily converted to single phase.

All wetted parts parts are 300 series stainless steel. Standard unit includes 15.5 to 121°C (60 to 250°F) double-pole thermostat mounted in upper housing that has a 9.5 mm (%") diameter bulb and capillary installed in watertight thermowell with adjustable compression fitting.



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#### **Custom Engineered/Manufactured Heaters**

An electric heater can be very application specific, for sizes and ratings not listed, OMEGA® will design and manufacture an over-the-side immersion heater to meet your requirements.

#### Please Specify the Following:

- Application
- Wattage, Voltage and Phase
- Element Sheath Material
- Number of Elements
- Element Watt Density
- "A" and "B" Dimensions
- Optional Features
- Quantity

<b>To Order</b> Visit omega.com/tat6_series for Pricing and Details								
Model No.					Number of	mm (inch)		
240V-1Ph	240V-3Ph	480V-1Ph	480V-3Ph	KW	Elements	Α	В	E
TAT60001	TAT60002	TAT60003	TAT60004	5	3			190 (7.5)
TAT60005	TAT60006	TAT60007	TAT60008	7.5	6			266 (10.5)
TAT60009	TAT60010	TAT60011	TAT60012	10	9	1829 (72)	387 (15.25)	343 (13.5)
—	TAT60013	TAT60014	TAT60015	15	12	1020 (12)		419 (16.5)
—	TAT60016	TAT60017	TAT60018	20	18			571 (22.5)
_	—	TAT60019	TAT60020	30	24			724 (28.5)

Ordering Example: TAT60001, 5 KW immersion heater, 240 Vac, 1 phase.