

### Over-the-Side Immersion Heaters

#### Application

Tempco Over-the-Side Immersion Heaters are specifically designed for heating fluids in tanks. Depending on the tank shape, size, accessibility and working area inside the tank, choose a round or L shaped heater.

Standard sheath materials are Incoloy® 800 and steel with all wetted parts made with compatible alloys.

#### Construction

Tubular heating elements are welded into a liquid-tight junction box. Power leads for the elements travel up through the riser pipe and are connected to a terminal block in a NEMA 4 Housing. Unless otherwise specified, heaters are wired for three-phase from the factory but can easily be converted to single-phase.

A thermowell for a 3/8" diameter bulb is standard to accommodate an optional thermostat. A thermostat can be field installed to mounting lugs located in the electrical enclosure.

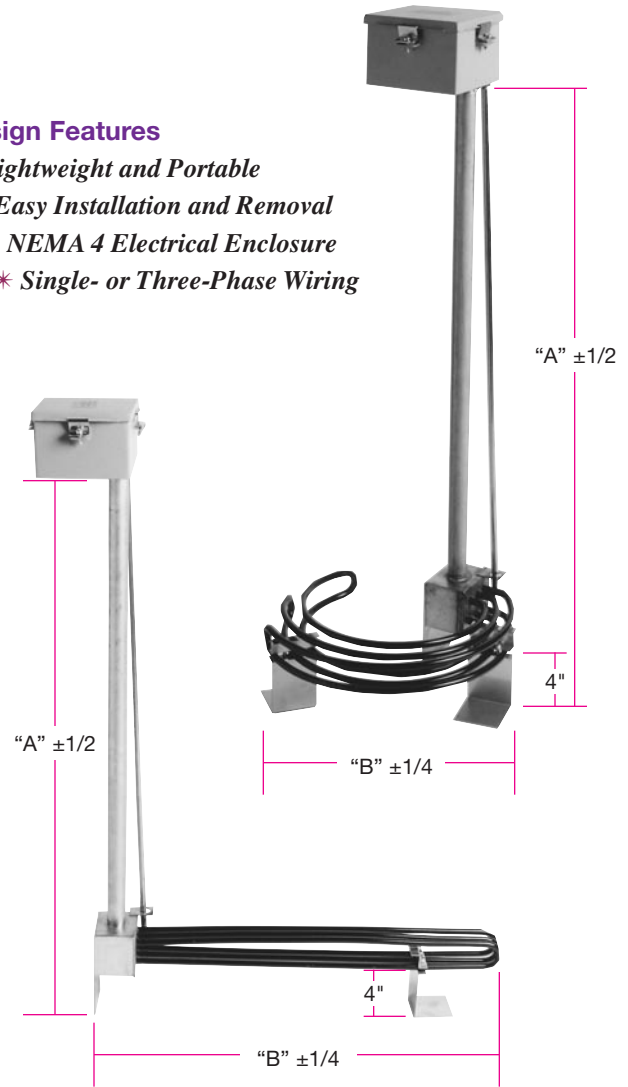
4" (102 mm) sludge legs keep the elements off the bottom of the tank and above any deposits that may accumulate there.

#### Optional Features

- \* 304 or 316 Stainless Steel construction for all wetted parts
- \* Passivation of all wetted parts. Electropolished or bright annealed surface treatments for Stainless Steel or Incoloy designs (heating elements only)
- \* NEMA 1 or NEMA 4/7 (explosion resistant) terminal housings
- \* Flange, fixed or adjustable bracket on riser for mounting
- \* Mounting flange for terminal housing
- \* External power wiring options include flexible cord/plug, armored cable, wire braided or plain lead wire
- \* Double- or Single- pole thermostat (see page 11-6 for available ranges)
- \* Process or Hi-limit thermocouple in thermowell in place of the thermostat
- \* Hi-limit MI thermocouple on sheath
- \* Special riser and/or sludge leg heights
- \* Up to 12 elements per heater assembly
- \* Right-angle riser design

#### Design Features

- \* Lightweight and Portable
- \* Easy Installation and Removal
- \* NEMA 4 Electrical Enclosure
- \* Single- or Three-Phase Wiring



#### Typical Heating Applications: Lightweight Oils • Degreasing Solutions • Mineral Oil

#### Design Features

- \* Steel Sheath Heating Elements
- \* NEMA 4 Terminal Housing
- \* Watt Density of 23 watts/in<sup>2</sup> (3.6 watts/cm<sup>2</sup>)

#### Standard (Non-Stock) and Stock Sizes and Electrical Ratings

Stock Items Are Shown In **RED**

Element Shape	"A"		"B"		KW	Part Number		Approximate Net Weight	
	in	mm	in	mm		240V-3Ph	480V-3Ph	lbs	kg
Round	39 <sup>3</sup> / <sub>16</sub>	999	13 <sup>1</sup> / <sub>2</sub>	343	3	TAT20001	TAT20002	17	8
	51 <sup>1</sup> / <sub>16</sub>	1303	18 <sup>1</sup> / <sub>2</sub>	470	6	TAT20003	TAT20004	20	9
	51 <sup>3</sup> / <sub>16</sub>	1303	23 <sup>1</sup> / <sub>2</sub>	597	9	TAT20005	TAT20006	22	10
Straight	39 <sup>3</sup> / <sub>16</sub>	999	22 <sup>3</sup> / <sub>8</sub>	575	3	<b>TAT10001</b>	TAT10002	15	7
	51 <sup>1</sup> / <sub>16</sub>	1303	37 <sup>3</sup> / <sub>8</sub>	956	6	<b>TAT10003</b>	<b>TAT10004</b>	18	8
	51 <sup>3</sup> / <sub>16</sub>	1303	52 <sup>3</sup> / <sub>8</sub>	1337	9	<b>TAT10005</b>	<b>TAT10006</b>	20	9