

Flanged Immersion Heaters

Tubular heaters are brazed or welded into a standard pipe flange. 3", 4", 5", 6", 8", 10", 12" and 14" are standard sizes. Flanged immersion heaters are used in large capacity vessels, in high pressure applications and are installed by bolting the unit to a matching flange welded to the vessel wall.



- 150 lb. ASA carbon steel flange from 3" to 14" sizes
- .430" diameter copper, steel, stainless steel, Incoloy tubular elements, or .275" x 1" Incoloy elements
- 90, 45, 30, 22, 15, 13, 8 and 6.5 watts/square inch elements for various processes
- General purpose, moisture or explosion resistant terminal enclosures
- Thermo well for 3/8" diameter thermostat bulb
- Tubular element bends are repressed after forming to extend element life
- Instruction Manual with wiring instructions included with each unit

Applications:

Copper Sheath: Clean water, freeze protection, hot water storage, boiler and water heaters, cooling towers, heating of solutions not corrosive to copper

Steel Sheath: Asphalt, wax, paraffin, tar, fluid heat transfer mediums, petroleum, degreasing and solvent oils, fuel oils, machine oils, alcohol

Stainless Steel Sheath: Process water, soap and detergent solutions, soluble cutting oils, demineralized or deionized water (passivation recommended)

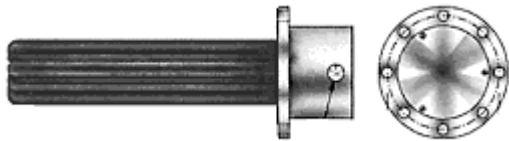
Incoloy Sheath: Solution water, corrosive solutions, air, gas, steam super heating

****Be certain that the sheath material and watt density selected are compatible with the material being heated and the operating temperature.****

Flange Size	Standard No. of Tubular Elements	Can Be Increased To:	150lb Flanged O.D.	300lb Flanged O.D.
3	3	6	7-1/2"	8-1/4"
4	6	-	9"	10"
5	6	12	10"	11"
6	12	15	11"	12-1/2"
8	18	27	13-1/2"	15"
10	27	36	16"	17-1/2"
12	36	48	19"	20-1/2"
14	45	60	21"	23"

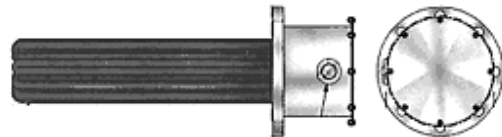
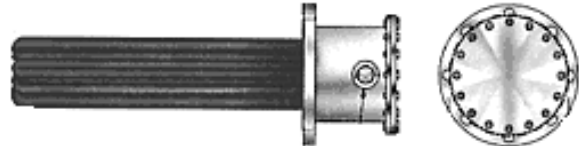


Sheath Material	Element Type	Flange Material	Watt Density	Application
Copper	Tubular	Steel	High 45 watts/sq. in.	Clean water, solutions not corrosive to copper
Stainless	Tubular	Steel	High 45 watts/sq. in.	Process water, detergent solutions, soluble cutting oils
Incoloy	Tubular	Steel and Stainless Steel	High 45 watts/sq. in.	Solution water, potable water
Incoloy	Tubular	Stainless Steel	High 40 & 82 watts/sq. in.	Clean and potable water, solution water
Incoloy	Tubular	Stainless Steel	Medium 28 watts/sq. in.	Cooking oil, ethylene glycol
Incoloy	Tubular	Stainless Steel	Medium 20 watts/sq. in.	Corrosive solutions, heat transfer liquids, degreasing solutions
Stainless Steel	Tubular	Steel	Medium 22 watts/sq. in.	Mild corrosive solutions, process air <1100°F sheath temperature
Incoloy	Tubular	Stainless Steel	Medium 22 watts/sq. in.	Corrosive solutions, process air <1500°F sheath temperature
Steel	Tubular	Steel	Medium 22 watts/sq. in.	Lightweight oil, degreasing or solvent oils
Incoloy	Tubular	Stainless Steel	Medium 14 watts/sq. in.	Severe corrosive solutions
Incoloy	Tubular	Stainless Steel	Medium 15 watts/sq. in.	Corrosive solutions, medium weight oil, liquid paraffin
Steel	Tubular	Steel	Low 11 & 13 watts/sq. in.	Medium weight oil, fuel oil
Incoloy	Tubular	Stainless Steel	Low 6 watts/sq. in.	Heavy weight oil, asphalt
Steel	Tubular	Steel	Low 6.5 watts/sq. in.	Heavy weight oil, asphalt



NEMA 1- General purpose terminal enclosure.

NEMA 4/7- Moisture and explosion resistant terminal enclosure.



NEMA 4- Moisture resistant terminal enclosure.

Options:

- Special rating or immersion length
- 316 stainless steel or other sheath material
- Passivation
- Electro polishing
- 300 lb. or greater ASA flange
- Other material for flange
- Built-in thermostat
- Thermocouple attached to sheath for high-limit protection
- Baffles to increase material flow velocity
- Larger flange sizes
- Stand-off terminal enclosure to isolate terminals and wiring from flange in high temperature process. 625" diameter elements to lower watt density or increase wattage
- ASME Certification

Ordering Information:

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| <ul style="list-style-type: none"> • Flange Size • Flange Material • Flange Rating • Sheath Material • Number of Elements • Integral Thermostat • Over Temperature Cut Out • Terminal Enclosure • Rating | <ul style="list-style-type: none"> • Heating Element Immersion Length • Number of Electrical Circuits • Terminal Seals • Heating Element Watt Density • A.S.M.E. • Agency Approvals • Flange Gasket • Special Features • Operating Conditions • Application • Heated Medium | <ul style="list-style-type: none"> • Operating Temperature • Operating Pressure • Installation Environment • Ambient Temperature |
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