



# HeaterTek

Industrial Heating Systems

## Immersion heaters & Controls

### PTFE Fluoropolymer Heaters

All HeaterTek PTFE fluoropolymer heaters  
have the same outstanding features:

- Excellent chemical resistance to most aqueous chemistries
- Heavy wall PTFE Tubing over stainless steel element
- Low watt density for long life: 10 w/in<sup>2</sup> (1.5w/cm<sup>2</sup>)
- Corrosion resistant PP terminal enclosure
- Wire & conduit included, 36" Standard
- Grounded metal element
- Voltages 120, 208, 240, or 480
- Guards available
- Thermal over-temperature protection:
  - P1 replaceable fuse up to 190°F
  - P4 replaceable fuse up to 220°
  - P2 resettable fuse up to 190F
  - P8 resettable fuse up to 210°F
  - P6 resettable fuse up to 230°F

**HZ**  
Spiral Over the  
Side PTFE Heater



**HZL**  
Spiral L- Shaped PTFE  
Heater



**HZF**  
Low Profile  
PTFE Heater



**HZFL**  
Low Profile L-Shaped  
PTFE Heater



# 3HZO

Multi Element PTFE Heater



# 3HZ

Three Element PTFE Heater



# HZO

PTFE Heater



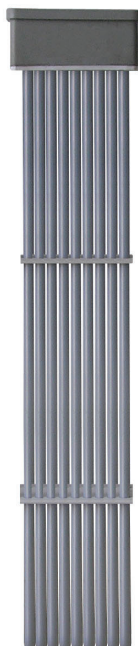
# 3HZOL

Multi Element L-Shaped PTFE Heater



# 9HZ

Nine Element PTFE Heater



# 6HZ

Six Element PTFE Heater





# HeaterTek

Industrial Heating Systems

## Immersion heaters & Controls

### Metal Heaters

All HeaterTek metal heaters have the same outstanding features:

- Excellent chemical resistance with stainless steel or titanium sheaths
- Low watt density for long life: 35 w/in<sup>2</sup> (5w/cm<sup>2</sup>) for standard watt density, 17 w/in<sup>2</sup> (2.5w/cm<sup>2</sup>) for deratedCorrosion resistant PP terminal enclosure
- Grounded metal element
- Voltages: 120, 208, 240, or 480
- Thermal over-temperature protection:

P1 replaceable fuse up to 180° F

P2 resettable fuse up to 180° F

P4 replaceable fuse up to 230° F

P6 resettable fuse up to 230° F

P5 replaceable fuse up to 300° F

P7 resettable fuse up to 300° F

### HF, HS, & HT

Single Tube Over the Side Metal Heater



### H3F, H3S, & H3T

Triple Tube Over The Side Metal Heater



### HD

Derated Metal Over The Side Heater



### HD3

Derated Triple Metal Over The Side Heater



# HL

Metal L-Shaped Heater



# H3L

Triple Metal L-Shaped Heater



# HDL

Derated Metal L-Shaped Heater



# HD3L

Derated Triple Metal L-Shaped Heater



# H3HS

Three Element 316 Stainless Steel Heater



# H3V

Three Element Metal Deep Tank Heater



# H6HS

Six Element 316 Stainless Steel Heater



# H3LV

Vertical Stack Triple Metal L-Shaped Heater



# H9HS

Nine Element 316 Stainless Steel Heater



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# NEW Immersion Heating Systems Applications

Industrial Heating Systems

The control can be mounted near the tank or at end of a tank line with a cluster of other controls

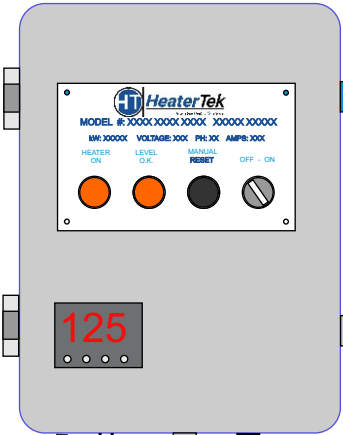
Level Probes- AIR Bubbler turns heaters off when level drops

Heaters should be 4" from the back of the anode baskets. Four inches(4") off the tank floor.

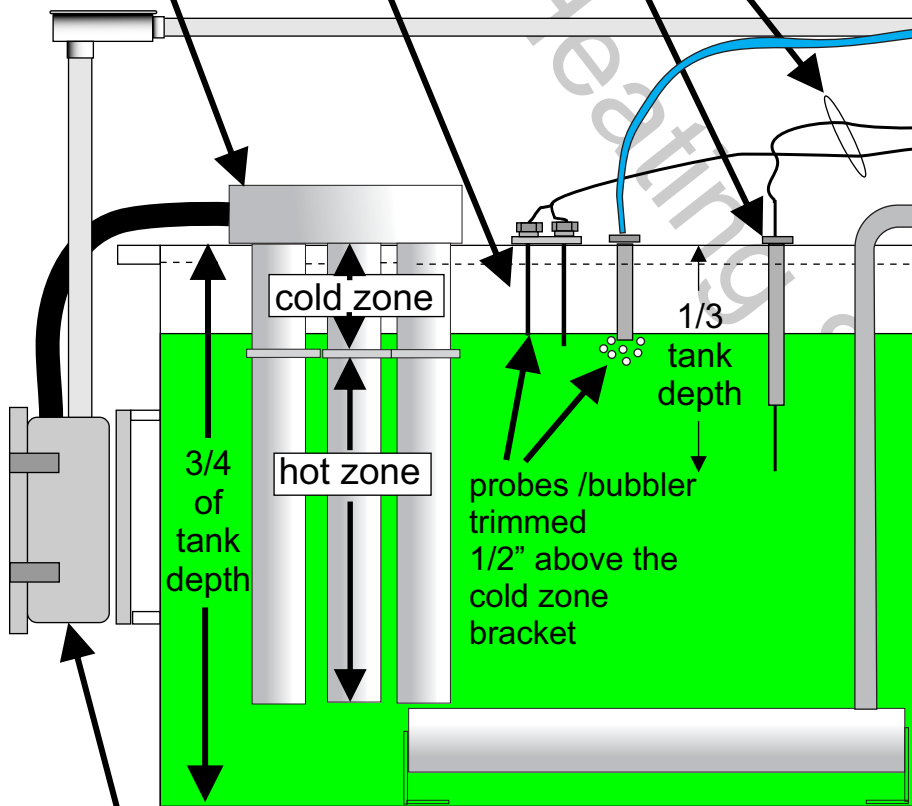
Thermowell- keeps the thermocouple from moving around.

std-10ft (can be 100 ft if necessary consult factory)

7 day timer (optional)



Conduit vapor loop keeps condensed moisture from entering.

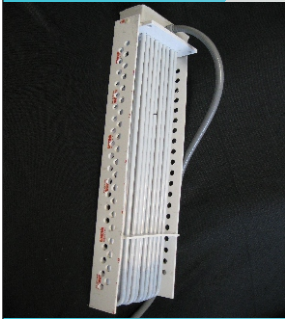


fiberglass, hinged junction box with power block

## FLOORING SUGGESTIONS

- CONTAINMENT TRAY
- EPOXY COATING
- FIBERGLASS WITH ATLAS RESIN
- FUSION WELDED POLYPRO

PTFE Heaters



All welded junction boxes Stainless, Titanium on over-the-side Stainless and Titanium



Electric Immersion Heaters with the following sheath materials-

PTFE,  
Titanium  
Stainless  
Quartz



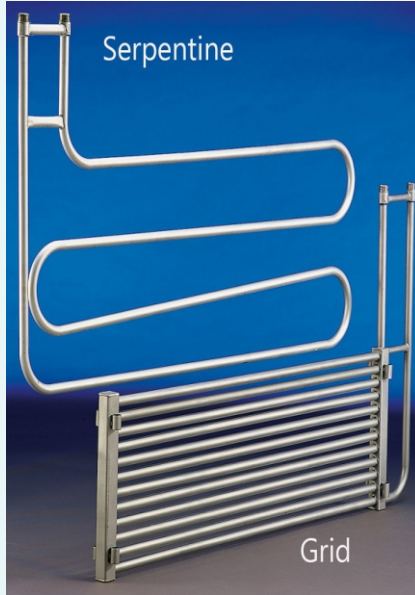
**HeaterTek**

Industrial Heating Systems

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and Tantalum steam/hotwater coils



Serpentine

Grid

Over-The-Side



Welded Head with a handle for cleaning



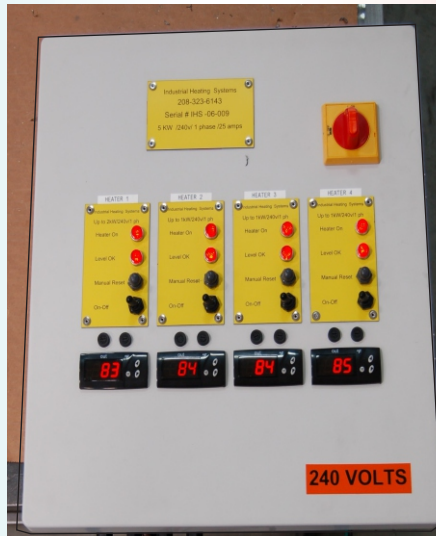
Lift Rings on Heavy Heaters



108" 36kw/480/3ph stainless or titanium

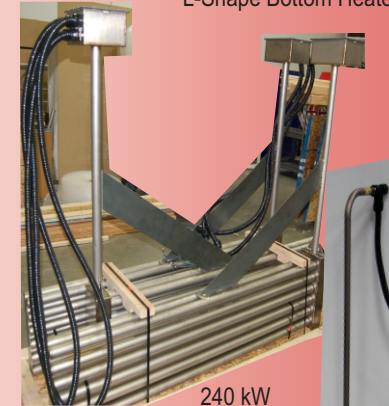


Quartz to 40"



UP to 200 Amp Service for 2-4 tanks- One box

L-Shape Bottom Heaters



240 kW



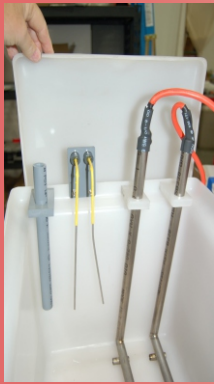
120 kW



24 kW

## Lab Gear

### Tank Systems



Control with built-in Level Safety Control



Air Bubbler for DI Water or any chemistry.

### Level Controls

24,36 and 48"



Recessed Probe Type



Probe type with manual reset.

Air Bubbler with CPVC tubes. Stainless and Kynar available.

Industrial Heating Systems has the capabilities of supplying your heaters needs and so much more.

We can supply you with the necessary heaters and controls. L- shape lab type, Titanium or 316 SS heaters, with a liquid level safety with manual reset button and finishing it with a thermowell to stabilize the teflon type "J" sensor.

Water evaporation systems - The customer wanted to evaporate 5 gallons per hour. We built a 6 heater Evaporation System with auto fill using our AIR Bubbler Level Control System. The Air Bubbler uses air pressure for activation and can work in any solution and temperature. Seven day a week operating system.

Battery Acid... A customer called inquiring about heating some battery acid with quartz heaters. After 15 minutes I sent him a quote for a 4 tank heating system. He had his tanks and we supplied him with the other related equipment.

Double Boiler System for heating wax... The customer wanted a water jacked tank to heat some wax. to 140 F. He gave us the dimension of his container. We proceeded to design and build a heating system using water as the transfer medium. The system worked well enough that the customer ordered a 2nd system.

Tin Fusing is a process where the parts are tin plated and then placed in an oil bath, Reflowing the tin, gives the surface a smoother finish.

The tanks have to be heated externally for safety. We designed and built the tanks.

Level Controls- **Every tank with an immersion heater in it, needs a liquid level control system with a manual reset system.**

Thermal cutoff devices operate in the hot zone. Level controls work above the hot zone. Simple and safer. Easy to check and easy to clean.

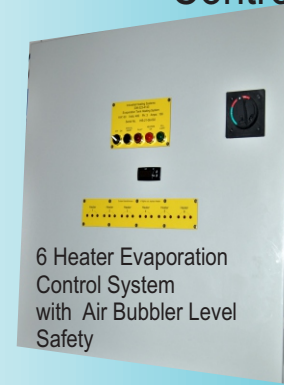
We say that because 80-90 % of the process tanks in use, are made of /or have plastic tanks or liners that are petroleum based products.

If you have a new project or even an existing application that you are not sure about, give us a call.



Talk to the Design Specialist 208-323-6143

## Control Systems



6 Heater Evaporation Control System with Air Bubbler Level Safety



Temperature Indicators



Large Heater Control System



Standard Tank Control

## Equipment



Externally Heated Tanks



Hot Oil Reflow Systems



Double Boiler Heating System



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