

# HEATING ELEMENTS

## Electric Immersion Heaters Constructed For Long Service Life

Hubbell electric immersion heaters are manufactured to order and can be engineered to meet the exact requirements of a particular application.

Our heaters are constructed using only the highest grade materials and are put through a rigorous quality assurance testing procedure to ensure that each heater conforms to specification.

Hubbell electric immersion heaters are fabricated in a wide variety of types and styles including cartridge heaters, screw plug heaters, and flanged heaters.

### Applications

Water heaters, boilers, oil heaters, freeze protection, oem applications, storage tanks, railroad tank cars, process systems, heat transfer systems



### Standard Equipment

- NEMA 1 terminal housing
- Fitted gasket
- Heavy duty factory fitted jumpers
- 80/20 Nickel-chromium resistance wire
- High grade magnesium oxide insulation
- Element spacers as required
- Re-pressed elements at U-bends

## Heating Elements Model Number Designation

BASE DESIGN	KW	VOLTAGE & PHASE	SHEATH MATERIAL	NUMBER OF ELEMENTS	FLANGE MATERIAL	NUMBER OF CIRCUITS	TERMINAL HOUSING	IMMERSION LENGTH	OPTIONAL EQUIPMENT
<b>A</b> = 3" Flange	Up to 1000 kW* (*Standard configuration. Higher kW available, consult factory)	<b>A</b> = 120V 1Φ	<b>C</b> = Copper	1 – 78* (*Standard Configuration. Higher element counts available, consult factory)	<b>B</b> = Steel	1 – 26 (*Standard Configuration. Higher number of circuits available, consult factory)	<b>N</b> = None	in inches	Write/type optional equipment code in the gray box below in alphabetical order. For multiple options separate codes with a dash (-).
<b>B</b> = 5" Flange		<b>RS</b> = 208V 1Φ	<b>I</b> = Incoloy		<b>C</b> = Steel with Copper Facing		<b>A</b> = NEMA 1 (Dust Resistant)		
<b>C</b> = 6" Flange		<b>R</b> = 208V 1Φ	<b>T</b> = Titanium		<b>I</b> = Incoloy		<b>W</b> = NEMA 4 (Liquid Resistant)		
<b>D</b> = 8" Flange		<b>S</b> = 240V 1Φ	<b>B</b> = Steel		<b>T</b> = Titanium		<b>X</b> = NEMA 4x (Liquid and Corrosion Resistant)		
<b>E</b> = 10" Flange		<b>T</b> = 240V 1Φ	<b>M</b> = Monel		<b>M</b> = Monel		<b>R</b> = NEMA 7 (Explosion Resistant)		
<b>G</b> = 12" Flange		<b>W</b> = 277V 1Φ	<b>S</b> = Type 316 Stainless Steel		<b>S</b> = Type 316 Stainless Steel				
<b>H</b> = 14" Flange		<b>T4S</b> = 480V 1Φ	<b>F</b> = Type 304/321 Stainless Steel		<b>F</b> = Type 304 Stainless Steel				
<b>J</b> = 16" Flange		<b>T3</b> = 380V 3Φ	<b>K</b> = Inconel		<b>K</b> = Inconel				
<b>K</b> = 18" Flange		<b>T7</b> = 415V 3Φ	<b>N</b> = Copper Nickel		<b>P</b> = Brass/Bronze				
<b>SL</b> = 1" MPS Screw Plug (Straight Thread)		<b>T5</b> = 440V 3Φ	<b>X</b> = Other		<b>X</b> = Other				
<b>SM</b> = 1" MNPT Screw Plug (Tapered Thread)		<b>T4</b> = 480V 3Φ							
<b>SN</b> = 1 1/4" MNPT Screw Plug (Tapered Thread)		<b>T6</b> = 600V 3Φ							
<b>SP</b> = 1 1/2" MNPT Screw Plug (Tapered Thread)		<b>T9</b> = 690V 3Φ							
<b>SR</b> = 2" MNPT Screw Plug (Tapered Thread)									
<b>SW</b> = 2 1/2" MNPT Screw Plug (Tapered Thread)									
<b>T</b> = Cartridge Heater									
<b>X</b> = Alternate Configuration (See Written Specifications)									

### Example: D120T4C18B3A52

An electric immersion heater with an 8" 150 Lb. ANSI flange, 120 KW, 480 Volt 3 phase, copper sheathing, 18 elements, steel flange, 3 circuits, NEMA 1 terminal housing, and a total immersed length of 52".

### Optional Equipment

*Optional equipment must be called out in the written specifications, use the codes below.*

- i1** Built-in High Limit
- i2** Built-in Thermostat 60°F - 250°F range
- i3** Built-in Thermostat 60°F - 187°F, SPST, Pilot Duty (Explosion Proof/Resistant Only)
- i4** Built-in Thermowell
- i5** Factory installed Baffle System
- i6** Passivated
- i7** Electropolished
- i8** Element Hermetic Seals
- i9** Military Spec Conformance to MIL-H-22577
- i10** Individually Replaceable Elements\*
- i11** Dry Side Shortened/Extended Cold End (Please Specify)
- i12** Alternate Flange Construction
- i13** Additional Conduit Openings (Please Specify Size and Amount)
- i14** Thermocouple Attached to Sheath (Specify Type: J, K, T, E)
- i15** Gasket Material (Specify Type)

**Please note:** Optional equipment is only meant for **electric immersion heaters** and may impact overall dimensions and weight. Please request submittal drawing from factory.

\*Subject to design

All information is subject to change without notice. Consult factory for submittal drawings.

For help with your electric heater application, please complete as much information as possible. An applications engineer or technical salesperson will respond to help you with your specific needs.

Name	Title						
Company	Address						
City	State	Zip	Country				
Tel: ( ) -	Ext	Fax: ( ) -					
Email	Website URL						
Should we send you a quote by:	Mail	Fax	Email	Needed	ASAP or by	/	/

Replacement Heater	Model #	KW	Volts	Phase	Quantity	
Manufacturer		Heater failed due to	Age	Operator error	Misapplication	Other

**New Application** Just Quote or if further recommendations can be made contact  
 I need technical assistance \_\_\_\_\_ Tel: ( ) -

<b>Quantity</b>	(If other than above)				
<b>My application Requires</b>	<b>Circulation Heater(s) Details Needed</b>				
Circulation Heater(s) _____	Flanged	FNPT	MNPT	Sketch or indicate	
Flanged Immersion Heater(s)	Insulation: Type Thickness				
Screw Plug Immersion Heater(s)	ASME Certification Required: Yes No Maybe				
Fuel Oil heater(s)	Inlet & Outlet: Size Location				
Hydraulic/Lube Oil Heater(s)	Flanged	FNPT	MNPT	Sketch or indicate	
Other	Drain	Vent	Other		

**Power Required** if unknown referred to Power Information section below

Wattage:	KW or	Watts	Volts	Phase	Watt Density (WSI if known)
Fluid/gas to be heated:	Cold lead wet side: (minimum if applicable)				
Element sheath material:	Flange plug material: (If specific materials are required)				
Maximum immersion length:	inches	Mounting installation:	Horizontal	Vertical	
Preferred flange/plug size:	If vertical terminal enclosure Up Down				
Operating pressure:	PSIG	Thermostat:	Yes	No	
Operating temperature:	°F or °C	Temperature range:	0 - 100°F	60 - 250°F	
Maximum bundle diameter:	175 - 550°F Other				
Terminal enclosure:	Standard	Weather resistant	Thermocouple:	Yes	No If yes type _____
Explosion resistant	Other	RTD:	Yes	No	Other comments: _____

#### Power Information

<b>I need to maintain tank temperature</b>	Tank dimensions: _____ Dia. x _____ L or _____ L x _____ W x _____ H
Closed top Yes No	Tank insulation: Yes No Type/Thickness: _____ Tank: Vertical Horizontal
Desired temperature: _____ °F or °C	Ambient temperature (worst case): _____ °F or °C
<b>I need to increase the temperature</b>	Beginning temp: _____ °F or °C Desired temp: _____ °F or °C
Allowable heat-up time: _____ Hrs/Mins. Flow rate: _____ gallons or pounds per hour, _____ minute or second _____	



45 Seymour Street  
P.O. Box 288  
Stratford, CT 06615  
(203) 583-4460

[hubbellheaters.com](http://hubbellheaters.com)



H1105-A-20260129