

### Metal Heater

**Designed specifically for phosphate applications**

For use in iron, zinc and manganese phosphate tanks

Rugged cast steel terminal enclosure with 3 ft (.9m) flexible PVC liquid tight conduit

Schedule 40, heavy wall, 316 stainless steel sheath withstands scaling better than traditional heaters

Grounded construction and built in thermal protector



1,000 watts to 10,000 watts



120 to 600 volts



Schedule 40, heavy wall, 316 stainless steel sheath



cULus listed (except steel). CE compliant (except 600 volts)

DAS SERIES, PHOSPHATE HEATERS					
WATTS	VOLTS	HOT ZONE In./(mm.)	OVERALL LENGTH In./(mm.)	MODEL NUMBER	SHIP WGT. Lbs./ (kg.)
1000	120	7	11	DAS1111-P4	17
	240	(180)	(280)	DAS1211-P4	(8)
2000	240	12	17	DAS2217-P4	20
	480	(305)	(430)	DAS2417-P4	(9)
3000	240	18	23	DAS3223-P4	24
	480	(460)	(585)	DAS3423-P4	(11)
3500	240	21	29	DAS3.5229-P4	30
	480	(535)	(735)	DAS3.5429-P4	(14)
4000	240	28	35	DAS4235-P4	36
	480	(710)	(890)	DAS4435-P4	(16)
5000	240	33	41	DAS5241-P4	42
	480	(840)	(1040)	DAS5441-P4	(19)
6000	240	39	47	DAS6247-P4	48
	480	(990)	(1195)	DAS6447-P4	(22)
8000	240	49	59	DAS8259-P4	58
	480	(1245)	(1500)	DAS8459-P4	(27)
10000	240	62	71	DAS10271-P4	64
	480	(1575)	(1805)	DAS10471-P4	(30)

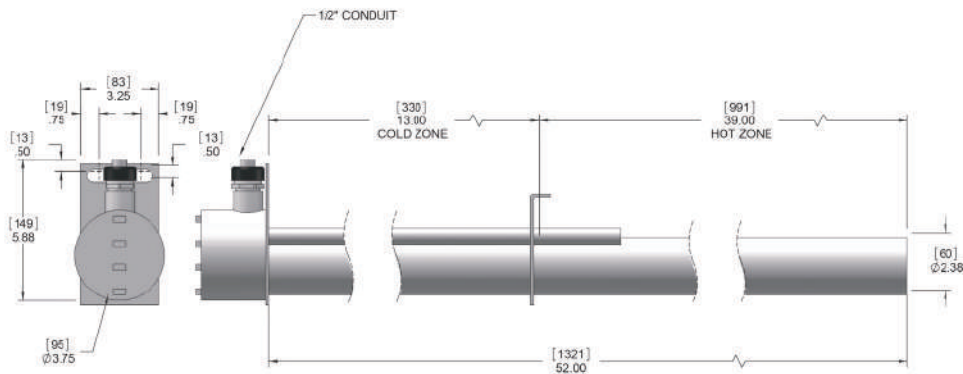
## Features & Values

- For use in iron, zinc and manganese phosphate tanks
- Schedule 40, heavy wall, 316 stainless steel sheath withstands scaling better than traditional heaters
- Low watt densities of 23 watts per square inch (3.5 w/cm<sup>2</sup>) helps to minimize scaling while only utilizing the space required for a full watt density heater
- Rugged cast steel terminal enclosure with 3-foot (.9m) flexible PVC liquid tight conduit
- NOTE: Do not use in any aluminum reactive alkaline solutions.

## Specifications

<b>Wattages</b>	1,000 watts to 10,000 watts
<b>Voltages</b>	120 to 600 volts
<b>Options</b>	<ul style="list-style-type: none"> <li>▫ Thermal protectors: Replaceable high temperature fuses or resettable P2 bi-metal switches in two temperature ranges.</li> <li>▫ Special configurations and lengths</li> <li>▫ Longer wire and conduit lengths</li> <li>▫ Temperature and level controls sized to match the heater</li> </ul>
<b>Safety Features</b>	<ul style="list-style-type: none"> <li>▫ Grounded construction</li> <li>▫ Thermal protector built in. Replaceable P4 protector standard</li> <li>▫ Non-floating construction</li> </ul>
<b>Certifications</b>	CE compliant (except 600 volts)

## Dimensions



## Model Number Breakdown

DAS	2	3	23	-P5
Series	Wattage	Voltage	Length (in.)	Options
DAS	1 = 1000	1 = 120	11 = 1kW	no designator = single phase power (std)
	2 = 2000	2 = 240	17 = 2kW	-3 = three phase power
	3 = 3000	3 = 380	23 = 3kW	
	4 = 4000	4 = 480	29 = 3.5 kW	
	5 = 5000	5 = 415	35 = 4kW	
	6 = 6000	6 = 600	41 = 5kW	
	8 = 8000	7 = 400	47 = 6kW	
	10 = 10000	8 = 208	59 = 8kW	
		9 = 220	71 = 10kW	
		0 = 200	specify custom lengths, not to exceed tank depth	
				Type of Protector
				Replaceable Protector
				-P4 (std) = for solutions up to 230°F
				-P5 = for solutions 230° - 300°F
				Resettable Protector
				(additional control components required)
				-P6 = for solutions up to 230°F
				-P7 = for solutions 230° - 300°F
				Wire and Conduit Length
				no designator = 36" length standard
				specify variations from standard Ex: -
				X84 = 84"