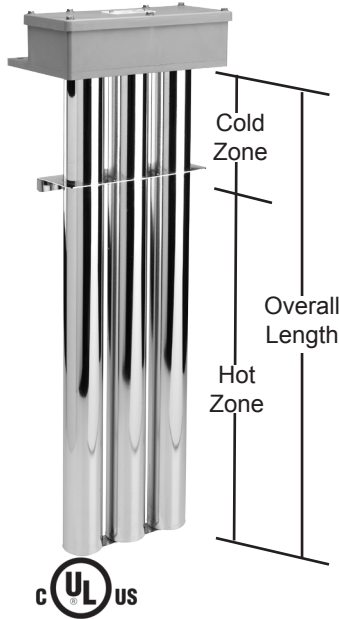




# SMART ONE



S13 SERIES, TRIPLE METAL OVER-THE-SIDE HEATERS							
WATTS	VOLTS	HOT ZONE	OVERALL LENGTH	304 STAINLESS MODEL NUMBER	316 STAINLESS MODEL NUMBER	TITANIUM MODEL NUMBER	SHIP WEIGHT
		In./(mm)	In./(mm)				Lbs./(kg)
3000	200-240	7 (178)	11 (279)	S13F3211	S13S3211	S13T3211	21 (9.5)
6000	200-240	13 (330)	17 (432)	S13F6217	S13S6217	S13T6217	30 (13.6)
9000	200-240	18 (457)	23 (584)	S13F9223	S13S9223	S13T9223	33 (15)
12000	200-240	24 (610)	29 (737)	S13F12229	S13S12229	S13T12229	39 (17.7)
15000	200-240	30 (762)	35 (889)	S13F15235	S13S15235	S13T15235	45 (20.4)
18000	200-240	35 (889)	41 (1041)	S13F18241	S13S18241	S13T18241	51 (23.1)
2400	380-480	7 (178)	11 (279)	S13F2.4411	S13S2.4411	S13T2.4411	21 (9.5)
4800	380-480	13 (330)	17 (432)	S13F4.8417	S13S4.8417	S13T4.8417	30 (13.6)
7200	380-480	18 (457)	23 (584)	S13F7.2423	S13S7.2423	S13T7.2423	33 (15)
9600	380-480	24 (610)	29 (737)	S13F9.6429	S13S9.6429	S13T9.6429	39 (17.7)
12000	380-480	30 (762)	35 (889)	S13F12435	S13S12435	S13T12435	45 (20.4)
14400	380-480	35 (889)	41 (1041)	S13F14.4441	S13S14.4441	S13T14.4441	51 (23.1)
16800	380-480	41 (1041)	47 (1194)	S13F16.8447	S13S16.8447	S13T16.8447	70 (31.8)

Three phase standard, add -1 for single phase.

## S13 Series, Metal Over the Side Heater Features and Benefits:

### LONG LIFE ELEMENT:

- ◆ Patented PTC heater element lasts longer than conventional heaters.
- ◆ Will not burn out due to scale or sludge buildup or if run in air.

### SAFE DESIGN:

- ◆ Heater self limits its maximum operating temperature to 482°F (250°C). This is lower than the ignition point of most plastics.
- ◆ Will not melt tanks when a 1/2" (12mm) minimum distance is maintained.
- ◆ Overtemperature protection devices are not required.
- ◆ Safety is built-in, not added on.
- ◆ Metal-grounded (earth ground), non-floating construction.

### OUTSTANDING PERFORMANCE:

- ◆ Watt densities up to 26 watts per square inch (4 w/cm<sup>2</sup>) ensure long service life.
- ◆ Auto-stabilizing solid state element prevents hot spots and ensures uniform heating.
- ◆ Heater derates itself in highly viscous and high temperature solutions. Consult factory for sizing assistance.

### CORROSION RESISTANT HEAD:

- ◆ Vapor resistant, flame retardant polypropylene terminal enclosure with 3 ft (.9m) flexible PVC liquid tight conduit.

### CHEMICALLY RESISTANT:

For use in most aqueous alkaline, electroplating and rinse solutions. Check solution recommendation chart with your chemical supplier for proper sheath material selection.

- ◆ 304 stainless steel.
- ◆ 316 stainless steel.
- ◆ Titanium.

**CERTIFICATIONS:** cULus listed and CE compliant.

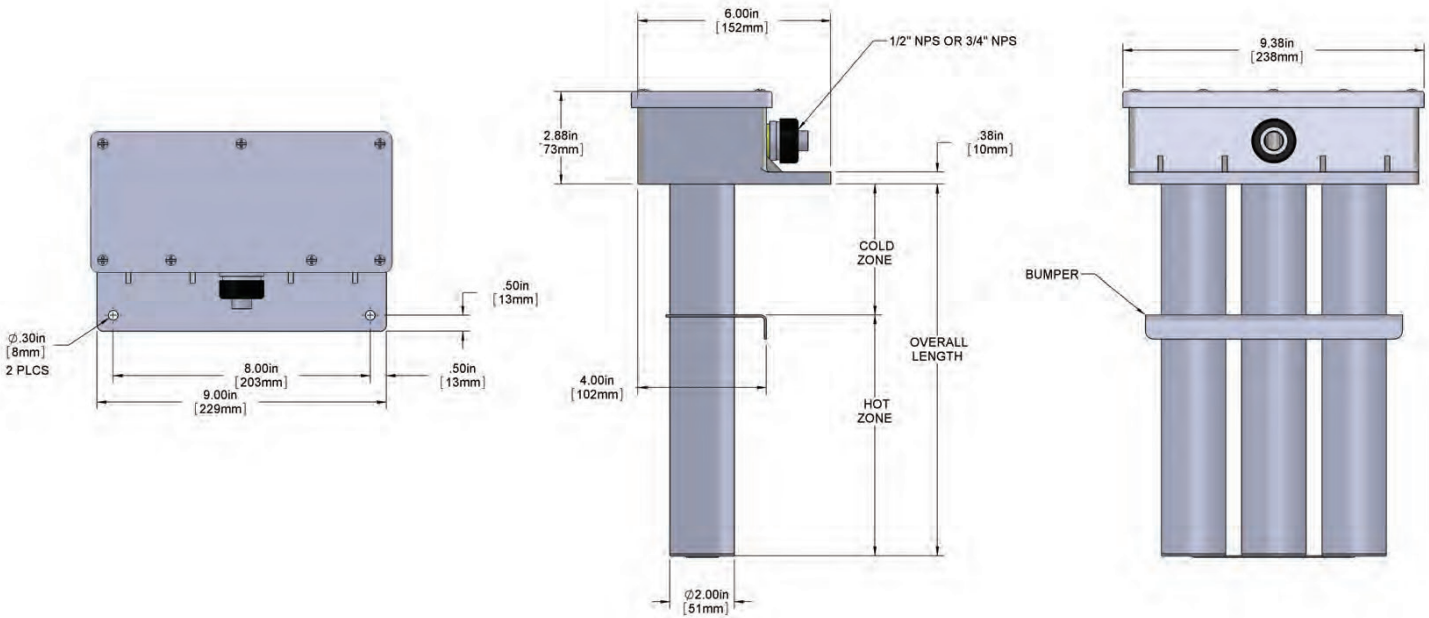
**SIZES:** 3,000 watts to 18,000 watts.

**VOLTAGES:** 200-240 volt, and 380-480 volt. Single or three phase power.

### OPTIONS AVAILABLE (consult factory):

- ◆ Special configurations and lengths.
- ◆ Longer wire and conduit lengths.
- ◆ All metal welded junction box.
- ◆ Temperature and level controls sized to match the heater (sold separately).

## DIMENSIONS



## SINGLE TUBE S1, OVER THE SIDE HEATER ORDERING INFORMATION

Series	Wattage	Voltage	Overall Length	Phase Options	Wire and Conduit Length
S13F = 304 stainless steel S13S = 316 stainless steel S13T = titanium	<b>200-240V:</b> 3 = 3000 6 = 6000 9 = 9000 12 = 12000 15 = 15000 18 = 18000  <b>380-480V:</b> 2.4 = 2400 4.8 = 4800 7.2 = 7200 9.6 = 9600 12 = 12,000 14.4 = 14,400 16.8 = 16,800	2 = 200-240 4 = 380-480	<b>200-240V:</b> 11 = 3kW 17 = 6kW 23 = 9kW 29 = 12kW 35 = 15kW 41 = 18kW  <b>380-480V:</b> 11 = 2.4kW 17 = 4.8kW 23 = 7.2kW 29 = 9.6kW 35 = 12kW 41 = 14.4kW 47 = 16.8kW (custom lengths available)	no designator = three phase -1 = single phase	no designator = 36" (1m) length standard specify variations from standard Ex: -X240 = 240" (6m)

### ORDERING EXAMPLE:

S13T3211

Titanium, 3,000 watts, 240 volt, 11" overall length, three phase.

