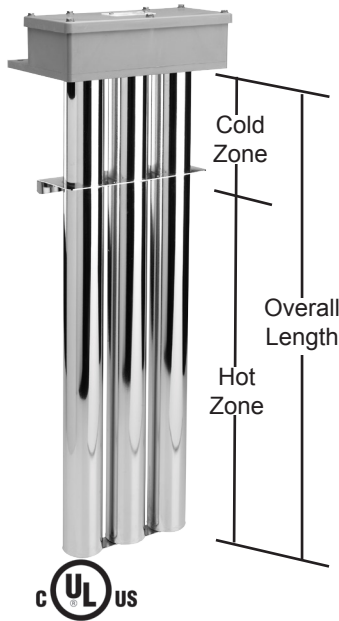




SMART ONE



S13 SERIES, TRIPLE METAL OVER-THE-SIDE HEATERS								
WATTS	VOLTS	HOT ZONE		OVERALL LENGTH	304 STAINLESS	316 STAINLESS	TITANIUM	SHIP WEIGHT
		In./(mm)	In./(mm)		MODEL NUMBER	MODEL NUMBER	MODEL NUMBER	
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/cm²) 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.

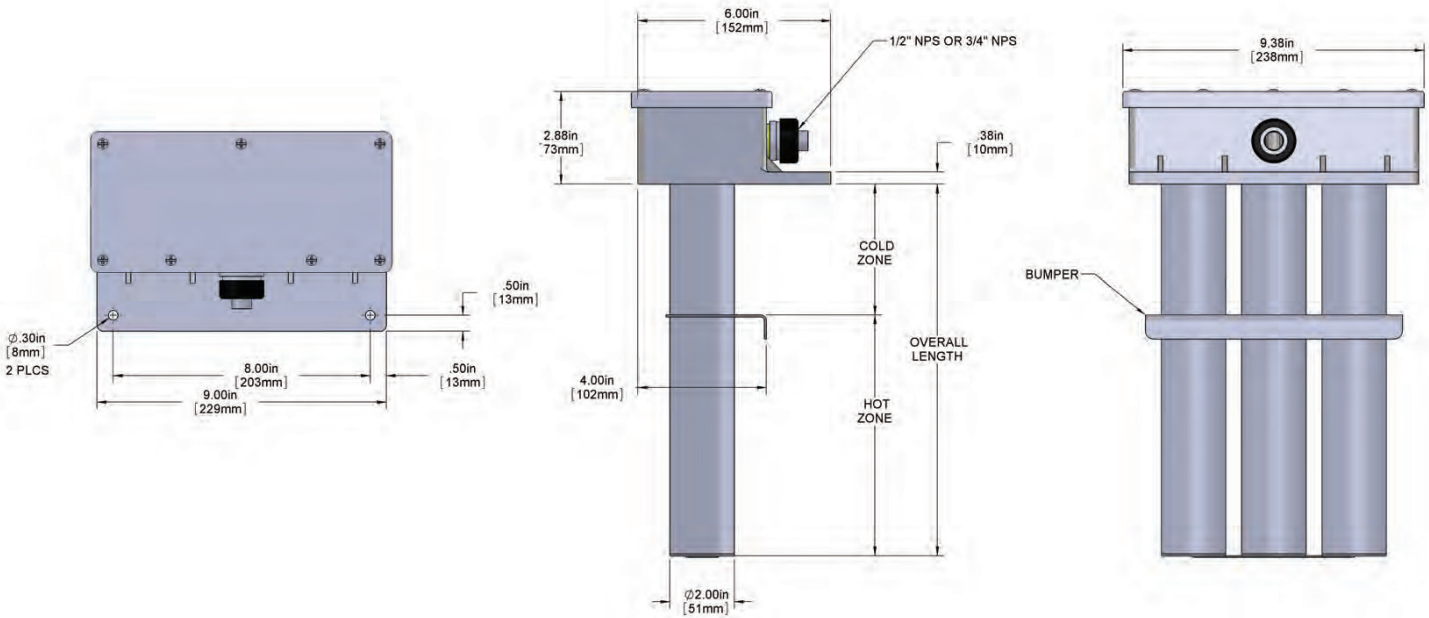
SIZES: 3,000 watts to 18,000 watts.

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	200-240V: 3 = 3000 6 = 6000 9 = 9000 12 = 12000 15 = 15000 18 = 18000 380-480V: 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	200-240V: 11 = 3kW 17 = 6kW 23 = 9kW 29 = 12kW 35 = 15kW 41 = 18kW 380-480V: 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.

