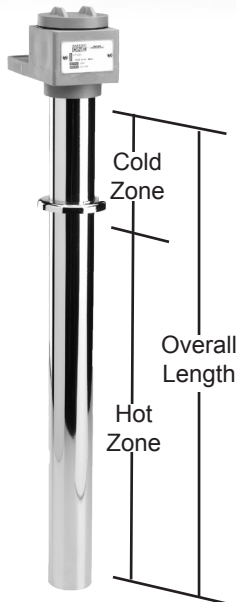




SMART ONE



S1 SERIES, METAL OVER-THE-SIDE HEATERS							
WATTS	VOLTS	HOT ZONE In./(mm)	OVERALL LENGTH In./(mm)	304 STAINLESS	316 STAINLESS	TITANIUM	SHIP WEIGHT Lbs./(kg)
				MODEL NUMBER	MODEL NUMBER	MODEL NUMBER	
1000	100-120	7	11	S1F1111	S1S1111	S1T1111	7
	200-240	(178)	(279)	S1F1211	S1S1211	S1T1211	(3.2)
2000	100-120	13	17	S1F2117	S1S2117	S1T2117	10
	200-240	(330)	(432)	S1F2217	S1S2217	S1T2217	(4.5)
3000	200-240	18 (457)	23 (584)	S1F3223	S1S3223	S1T3223	11 (5)
4000	200-240	24 (610)	29 (737)	S1F4229	S1S4229	S1T4229	13 (5.9)
5000	200-240	30 (762)	35 (889)	S1F5235	S1S5235	S1T5235	15 (6.8)
6000	200-240	35 (889)	41 (1041)	S1F6241	S1S6241	S1T6241	17 (7.7)
1600	380-480	13 (330)	17 (432)	S1F1.6417	S1S1.6417	S1T1.6417	10 (4.5)
2400	380-480	18 (457)	23 (584)	S1F2.4423	S1S2.4423	S1T2.4423	11 (5)
3200	380-480	24 (610)	29 (737)	S1F3.2429	S1S3.2429	S1T3.2429	13 (5.9)
4000	380-480	30 (762)	35 (889)	S1F4435	S1S4435	S1T4435	15 (6.8)
4800	380-480	35 (889)	41 (1041)	S1F4.8441	S1S4.8441	S1T4.8441	17 (7.7)
5600	380-480	41 (1041)	47 (1194)	S1F5.6447	S1S5.6447	S1T5.6447	23 (10.4)

Single phase standard, add -3 for three phase.

S1 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.

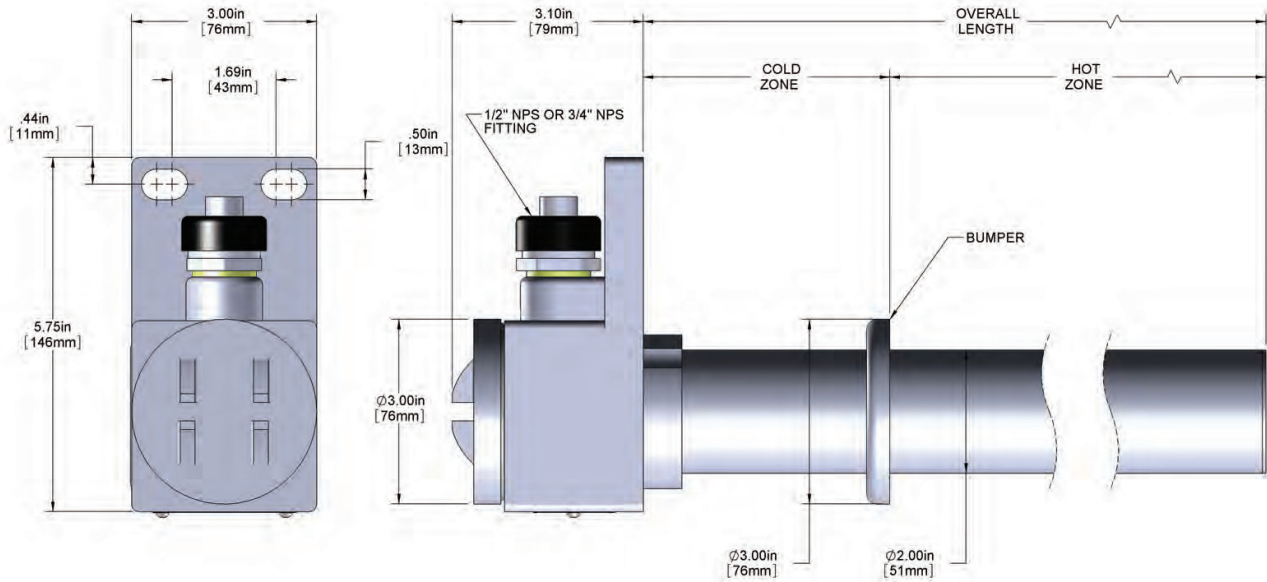
SIZES: 1,000 watts to 6,000 watts.

VOLTAGES: 120 volt, 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
S1F = 304 stainless steel S1S = 316 stainless steel S1T = titanium	120-240V: 1 = 1000 2 = 2000 3 = 3000 4 = 4000 6 = 6000 380-480V: 1.6 = 1600 2.4 = 2400 3.2 = 3200 4 = 4000 4.8 = 4800 5.6 = 5600	1 = 120 2 = 200-240 4 = 380-480	120-240V: 11 = 1kW 17 = 2kW 23 = 3kW 29 = 4kW 35 = 5kW 41 = 6kW 380-480V: 17 = 1.6kW 23 = 2.4kW 29 = 3.2kW 35 = 4kW 41 = 4.8kW 47 = 5.6kW (custom lengths available)	no designator = single phase -3 = three phase	no designator = 36" (1m) length standard specify variations from standard Ex: -X240 = 240" (6m)

ORDERING EXAMPLE:

S1T1111

Titanium, 1,000 watts, 120 volt, 11" overall length, single phase.

