

PROCESS TECHNOLOGY

2012 PRICE LIST



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HEATER PART NUMBER KEY

Model Series	Kilowatts	Volts	Length (in inches)	Vertical Height	Thermal Protection
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NOMINAL WATT DENSITY

TYPE OF HEATER	WATTS PER SQUARE INCH	WATTS PER SQUARE CENTIMETER
Fluoropolymer Heaters	10	1.5
Quartz Heaters	25	3.9
Metal Heaters	35	5.4
Derated Metal Heaters	18	2.8
SmartOne® Metal Heaters	26	4

STANDARD HEATER IS PROVIDED WITH 36 INCH (1m) LEADS AND CONDUIT • ADDITIONAL LENGTHS AVAILABLE, ADD "-X" PLUS LENGTH OF DESIRED TOTAL INCHES TO END OF MODEL NUMBER • PRICE AT \$4.00 PER FOOT (.3m) FOR LENGTHS OVER STANDARD 36 INCHES (1m).

PRICING AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. • PRICES FCA FACTORY.

All heaters, except screw plug heaters, feature overtemperature protectors (see page 2).

Shaded portions of charts indicate the item cannot ship via UPS. NOTE: Ship weights noted in charts are estimates. Please note that dimensional weights may differ and depending on the method of shipment, dimensional weights may override ship weights in some cases. Typical carton sizes and estimated dimensional weights for standard products can be found on our website at www.process-technology.com/shipweight.pdf

Page number notations in charts refer to corresponding product pages in our binder catalog.

REV0112

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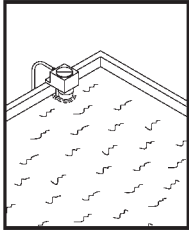
Contact Dave Eldredge (888) 891-0077 email: de@naltic.com Mobile (435) 503-4972

THERMAL OVERLOAD PROTECTION

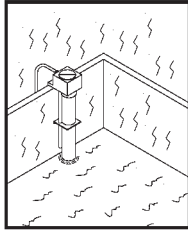
Protector 1, 2 and 3 Series

THE PROTECTOR 1 SERIES

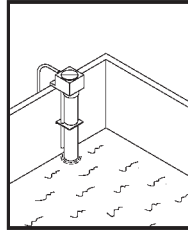
The Protector 1 overtemperature control system utilizes a heat sensitive fuse to detect overheat conditions. The fuse, placed inside a thermowell, positioned in contact with the heater sheath, will cut power to the heater in the event of low liquid level.



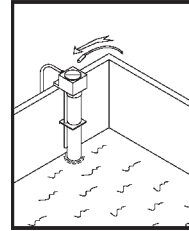
Immersion heater with PROTECTOR 1 working normally.



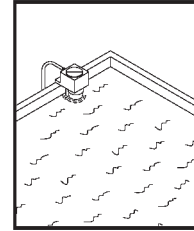
Process bath level drops due to tank leak or evaporation.



PROTECTOR 1 fuse sensor detects elevating temperature and shuts off power to heater.



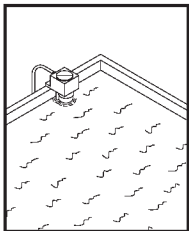
Replace fuse.



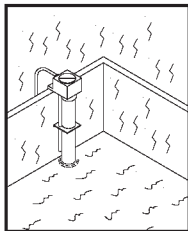
Restore the liquid level and resume operation.

THE PROTECTOR 2 AND 3 SERIES

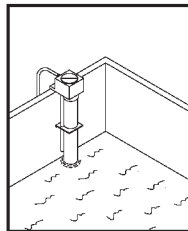
The Protector 2 and Protector 3 systems provide the same reliable overtemperature protection as the Protector 1; however, the control systems feature a heat sensing thermostat. If the liquid level drops and the heater reaches a preset overheat temperature, the thermostat cuts power to the heater and an audible alarm activates. After filling the tank, the immersion heater can quickly be made operational by pushing the reset button on the control to restore power. Protector 3 is designed for flexible lead or high temperature fluoropolymer (PTFE) heater applications only. DO NOT wire P2, P6, P7 or P8 devices directly to power or heater load, as a dangerous short circuit will result with irreparable damage to the heater. Refer to wiring diagrams for proper installation.



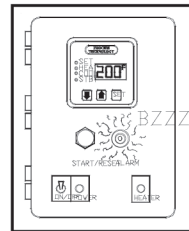
Immersion heater with PROTECTOR 2 working normally.



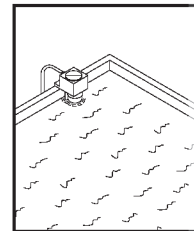
Process bath level drops due to tank leak or evaporation.



PROTECTOR 2's thermostat fuse detects elevated temperature and shuts off power to the heater.



The alarm is activated.



Restore the liquid level and push the reset button to resume operation.

HEATER THERMAL PROTECTION CHART

PROTECTOR TYPE	TANK TEMP. °F (°C)	METAL OVER-THE-SIDE AND FLANGED	METAL L-SHAPED	METAL FLEX RISER	QUARTZ	OVER-THE-SIDE FLUORO-POLYMER	L-SHAPED FLUORO-POLYMER	FLEX RISER FLUORO-POLYMER
Replaceable	to 180°F (82°C)	P1 White, 6021-18-R	P1 White, 6021-85-R	---	P1 Red, 6032-26-R	P1 to 190°F (88°C) Red, 6032-26-R	P1 to 190°F (88°C) Red, 6032-48-R	---
	180-230°F (82-110°C)	P4 Blue, 6022-18-R	P4 Blue, 6022-85-R	---	P4 Blue, 6033-26-R	---	---	---
	230-300°F (110-150°C)	P5 Red, 6023-18-R	P5 Red, 6023-85-R	---	---	---	---	---

RESETTABLE PROTECTORS REQUIRE ADDITIONAL CONTROL COMPONENTS (CONSULT FACTORY)

Resettable	to 180°F (82°C)	P2 White, 2804-18-R	P2 White, 2804-85-R	P2 * White, 4575	P2 White, 4575-26-R	P2 to 190°F (88°C) White, 4575-26-R	P2 to 190°F (88°C) White, 4575-48-R	P3 *
	180-230°F (82-110°C)	P6 Blue, 4047-18-R	P6 Blue, 4047-85-R	P6 * Blue, 4047	P6 Blue, 5580-48-R	P8 190-210°F (88-99°C) Brown, 5163-120-R	P8 190-210°F (88-99°C) Brown, 5163-120-R	P3 *
	230-300°F (110-150°C)	P7 Red, 2805-18-R	P7 Red, 2805-85-R	P7 * Red, 2805	---	P3 * 210-250°F (99-121°C)	P3 * 210-250°F (99-121°C)	P3 *

Color designations indicate lead wire color. Numbers indicate replacement item number. P3 option not available on 8 and 9 kW elements. Lowest temperature replaceable style Protector standard unless otherwise designated. * Not field replaceable.

VOLTAGES AVAILABLE (MOST HEATERS AND CONTROLS)

Voltages are designated in Process Technology model numbers as follows:

120 volt = 1	208 volt = 8	240 volt = 2	400 volt = 7	480 volt = 4
200 volt = 0	220 volt = 9	380 volt = 3	415 volt = 5	600 volt = 6

2 Specify single or three phase when ordering. Consult factory for other voltages.

Contact Dave Eldredge (888) 891-0077 email: de@naltic.com Mobile (435) 503-4972

HX SERIES, SPIRAL FLUOROPOLYMER (PTFE) HEATERS (Single Phase Only) (pg A1)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	OVERALL LENGTH* IN. / (mm)	MAX. COLD ZONE	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
500	120	5	11	41	HX.5111-**	\$335	HX/3HX11G	\$96	6
	240	(125)	(280)	(1040)	HX.5211-**				(2.5)
1000	120	7	11	41	HX1111-**	\$370	HX/3HX11G	\$97	7
	240	(180)	(280)	(1040)	HX1211-**				(3.5)
2000	120	12	17	40	HX2117-**	\$499	HX/3HX17G	\$107	8
	240	(305)	(430)	(1015)	HX2217-**				(4)
	480				HX2417-**				
3000	240	16	23	40	HX3223-**	\$604	HX/3HX23G	\$116	13
	480	(405)	(585)	(1015)	HX3423-**				(6)
4000	240	20	29	40	HX4229-**	\$826	HX/3HX29G	\$123	15
	480	(510)	(735)	(1015)	HX4429-**				(7)
5000	240	25	35	36	HX5235-**	\$930	HX/3HX35G	\$129	18
	480	(635)	(890)	(915)	HX5435-**				(8)
6000	240	29	40	30	HX6240-**	\$1,018	HX/3HX40G	\$136	21
	480	(735)	(1015)	(760)	HX6440-**				(10)
8000	240	37	47	40	2HX8247-**	\$1,451	HX/3HX47G	\$153	25
	480	(940)	(1195)	(1015)	2HX8447-**				(12)
9000	240	44	54	35	2HX9254-**	\$1,551	HX/3HX54G	\$165	28
	480	(1120)	(1370)	(890)	2HX9454-**				(13)

Guard optional.

* Longer lengths available - consult factory. Add \$3 (\$6 for 2HX heaters) for each vertical inch over standard lengths. Standard guard is polypropylene. Fluoropolymer guards recommended for chromic acid and solutions exceeding 180°F (82°C), consult factory.

HXL SERIES, SPIRAL L-SHAPED FLUOROPOLYMER (PTFE) HEATERS (Single Phase Only) (pg A2)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	STD. VERT. LENGTH* IN. / (mm)	MAX. COLD ZONE	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
500	120	6	12	41	HXL.5106-R*-**	\$364	HXL06-R*G	\$106	6
	240	(155)	(305)	(1040)	HXL.5206-R*-**				(2.5)
1000	120	8	12	41	HXL1108-R*-**	\$402	HXL08-R*G	\$109	7
	240	(205)	(305)	(1040)	HXL1208-R*-**				(3.5)
2000	120	12	18	40	HXL2112-R*-**	\$530	HXL12-R*G	\$131	8
	240	(305)	(460)	(1015)	HXL2212-R*-**				(4)
	480				HXL2412-R*-**				
3000	240	17	18	40	HXL3217-R*-**	\$639	HXL17-R*G	\$134	13
	480	(430)	(460)	(1015)	HXL3417-R*-**				(6)
4000	240	20	18	40	HXL4220-R*-**	\$863	HXL20-R*G	\$142	15
	480	(510)	(460)	(1015)	HXL4420-R*-**				(7)
5000	240	24	18	36	HXL5224-R*-**	\$971	HXL24-R*G	\$162	18
	480	(610)	(460)	(915)	HXL5424-R*-**				(8)
6000	240	29	18	30	HXL6229-R*-**	\$1,056	HXL29-R*G	\$178	21
	480	(735)	(460)	(760)	HXL6429-R*-**				(10)
8000	240	37	18	40	2HXL8237-R*-**	\$1,497	HXL37-R*G	\$209	26
	480	(940)	(460)	(1015)	2HXL8437-R*-**				(12)
9000	240	44	18	35	2HXL9244-R*-**	\$1,600	HXL44-R*G	\$222	29
	480	(1120)	(460)	(890)	2HXL9444-R*-**				(13)

Guard required, see notation above.

Add \$1 per inch for extended guard lengths. Standard guard is polypropylene.

HXF SERIES, LOW PROFILE FLUOROPOLYMER (PTFE) HEATERS (Single Phase Only) (pg A3)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	OVERALL LENGTH* IN. / (mm)	MAX. COLD ZONE	DIA. IN. / (mm)	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
500	120	6	14	36	5	HXF.5105-14-**	\$335	HXF05-14G	\$114	6
	240	(155)	(355)	(915)	(125)	HXF.5205-14-**				(2.5)
1000	120	7	14	36	6	HXF1106-14-**	\$370	HXF06-14G	\$120	7
	240	(180)	(355)	(915)	(155)	HXF1206-14-**				(3.5)
2000	120	9	17	35	8	HXF2108-17-**	\$499	HXF08-17G	\$130	8
	240	(230)	(430)	(890)	(205)	HXF2208-17-**				(4)
	480					HXF2408-17-**				
3000	240	10	23	35	9	HXF3209-23-**	\$604	HXF09-23G	\$147	13
	480	(255)	(585)	(890)	(230)	HXF3409-23-**				(6)
4000	240	12	29	35	11	HXF4211-29-**	\$826	HXF11-29G	\$162	15
	480	(305)	(735)	(890)	(280)	HXF4411-29-**				(7)
5000	240	13	35	31	12	HXF5212-35-**	\$930	HXF12-35G	\$187	18
	480	(330)	(890)	(790)	(305)	HXF5412-35-**				(8)
6000	240	14	40	26	13	HXF6213-40-**	\$1,018	HXF13-40G	\$206	22
	480	(355)	(1015)	(660)	(330)	HXF6413-40-**				(10)

Guard optional, see notation above.

HXFL SERIES, LOW PROFILE L-SHAPED FLUOROPOLYMER (PTFE) HEATERS (Single Phase Only) (pg A4)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	STD. VERT. LENGTH* IN. / (mm)	MAX. COLD ZONE	DIA. IN. / (mm)	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
500	120	5	12	36	5	HXFL.5105-R*-**	\$364	HXFL05-R*G	\$124	6
	240	(125)	(305)	(915)	(125)	HXFL.5205-R*-**				(2.5)
1000	120	6	12	36	6	HXFL1106-R*-**	\$402	HXFL06-R*G	\$128	7
	240	(155)	(305)	(915)	(155)	HXFL1206-R*-**				(3.5)
2000	120	8	18	35	8	HXFL2108-R*-**	\$530	HXFL08-R*G	\$139	8
	240	(205)	(460)	(890)	(205)	HXFL2208-R*-**				(4)
	480					HXFL2408-R*-**				
3000	240	9	18	35	9	HXFL3209-R*-**	\$639	HXFL09-R*G	\$163	13
	480	(230)	(460)	(890)	(230)	HXFL3409-R*-**				(6)
4000	240	11	18	35	11	HXFL4211-R*-**	\$863	HXFL11-R*G	\$178	15
	480	(280)	(460)	(890)	(280)	HXFL4411-R*-**				(7)
5000	240	12	18	31	12	HXFL5212-R*-**	\$971	HXFL12-R*G	\$198	18
	480	(305)	(460)	(790)	(305)	HXFL5412-R*-**				(8)
6000	240	13	18	25	13	HXFL6213-R*-**	\$1,056	HXFL13-R*G	\$214	22
	480	(330)	(460)	(635)	(330)	HXFL6413-R*-**				(10)

Guard required, see notation above.

* Specify vertical length by adding height in inches after "R". ** Specify thermal overload protection desired, see page 2.

HXO SERIES, FLUOROPOLYMER (PTFE) HEATERS (Single Phase Only) (pg A5)										
WATTS	VOLTS (See Pg. 2)	WIDTH IN. / (mm)	HEATER PAD LENGTH IN. / (mm)	OVERALL LENGTH* IN. / (mm)	MAX. COLD ZONE	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
500	120	5	6	11	36	HXO.5105-06-11-**-	\$384	HXO05-11G	\$112	6 (2.5)
	240	(125)	(155)	(280)	(915)	HXO.5205-06-11-**-				
1000	120	6	7	11	36	HXO1106-07-11-**-	\$413	HXO06-11G	\$119	7 (3.5)
	240	(155)	(180)	(280)	(915)	HXO1206-07-11-**-				
2000	120	6	10	17	35	HXO2106-10-17-**-	\$534	HXO06-17G	\$129	8 (4)
	240	(155)	(255)	(430)	(890)	HXO2206-10-17-**-				
	480					HXO2406-10-17-**-				
3000	240	6	12	23	35	HXO3206-12-23-**-	\$634	HXO06-23G	\$147	13 (6)
	480	(155)	(305)	(585)	(890)	HXO3406-12-23-**-				
4000	240	6	19	29	35	HXO4206-19-29-**-	\$846	HXO06-29G	\$163	15 (7)
	480	(155)	(485)	(735)	(890)	HXO4406-19-29-**-				
5000	240	6	20	35	31	HXO5206-20-35-**-	\$953	HXO06-35G	\$180	18 (8)
	480	(155)	(510)	(870)	(790)	HXO5406-20-35-**-				
6000	240	8	22	40	25	HXO6208-22-40-**-	\$1,030	HXO08-40G	\$202	22 (10)
	480	(205)	(560)	(1015)	(635)	HXO6408-22-40-**-				
8000	240	8	36	47	28	2HXO8208-36-47-**-	\$1,550	HXO08-47G	\$245	25 (11.5)
	480	(205)	(915)	(1195)	(710)	2HXO8408-36-47-**-				
9000	240	8	40	54	30	2HXO9208-40-54-**-	\$1,644	HXO08-54G	\$266	28 (13)
	480	(205)	(1015)	(1370)	(760)	2HXO9408-40-54-**-				

Guard optional.

* Longer lengths available - consult factory. Add \$3 (\$6 for 2HX heaters) for each vertical inch over standard lengths.

Add \$1 per inch for extended guard lengths. Standard guard is polypropylene. Fluoropolymer guards recommended for chromic acid and solutions exceeding 180°F (82°C), consult factory.

3HXO SERIES, MULTI ELEMENT FLUOROPOLYMER (PTFE) HEATERS (pg A6)										
WATTS	VOLTS (See Pg. 2)	WIDTH IN. / (mm)	HEATER PAD LENGTH IN. / (mm)	OVERALL LENGTH* IN. / (mm)	MAX. COLD ZONE	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
1500	120	10	6	11	36	3HXO1.5110-06-11-**-	\$858	3HXO10-11G	\$147	15 (7)
	240	(255)	(155)	(280)	(915)	3HXO1.5210-06-11-**-				
3000	240	10	6	11	36	3HXO3210-06-11-**-	\$918	3HXO10-11G	\$152	20 (9.5)
	480	(255)	(155)	(280)	(915)	3HXO3410-06-11-**-				
4500	240	10	9.5	17	35	3HXO4.5210-9.5-17-**-	\$1,172	3HXO10-17G	\$162	21 (9.5)
	480	(255)	(245)	(430)	(890)	3HXO4.5410-9.5-17-**-				
6000	240	12	10.5	17	35	3HXO6212-10.5-17-**-	\$1,371	3HXO12-17G	\$180	21 (10)
	480	(305)	(270)	(430)	(890)	3HXO6412-10.5-17-**-				
9000	240	12	16	23	35	3HXO9212-16-23-**-	\$1,682	3HXO12-23G	\$207	36 (16.5)
	480	(305)	(405)	(585)	(890)	3HXO9412-16-23-**-				
12000	240	12	20.5	29	35	3HXO12212-20.5-29-**-	\$1,799	3HXO12-29G	\$233	42 (20)
	480	(305)	(520)	(735)	(890)	3HXO12412-20.5-29-**-				
15000	240	12	25	35	31	3HXO15212-25-35-**-	\$2,135	3HXO12-35G	\$316	48 (22)
	480	(305)	(635)	(890)	(790)	3HXO15412-25-35-**-				
18000	240	12	29	40	25	3HXO18212-29-40-**-	\$2,437	3HXO12-40G	\$367	54 (24.5)
	480	(305)	(735)	(1015)	(635)	3HXO18412-29-40-**-				

Guard optional, see notation above.

3-phase standard. Single phase available as an option, add "-1" before thermal designator. **Longer lengths available: add \$10 for each vertical inch over standard. Add \$6 per inch for extended guard lengths.

3HXOL SERIES, MULTI ELEMENT L-SHAPED FLUOROPOLYMER (PTFE) HEATERS (pg A7)										
WATTS	VOLTS (See Pg. 2)	WIDTH IN. / (mm)	HOT ZONE IN. / (mm)	STD. VERT.* LENGTH IN. / (mm)	MAX. COLD ZONE	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
3000	240	7	13	18	36	3HXOL3207-13-R*-**-	\$962	3HXOL07-13-R*	\$201	20 (9.5)
	480	(180)	(330)	(460)	(915)	3HXOL3407-13-R*-**-				
4500	240	9	11	18	35	3HXOL4.5209-11-R*-**-	\$1,216	3HXOL09-11-R*	\$217	21 (9.5)
	480	(230)	(280)	(460)	(890)	3HXOL4.5409-11-R*-**-				
6000	240	10	19	18	35	3HXOL6210-19-R*-**-	\$1,475	3HXOL10-19-R*	\$236	22 (10)
	480	(255)	(485)	(460)	(890)	3HXOL6410-19-R*-**-				
9000	240	10	23	18	35	3HXOL9210-23-R*-**-	\$1,727	3HXOL10-23-R*	\$249	36 (16.5)
	480	(255)	(585)	(460)	(890)	3HXOL9410-23-R*-**-				
12000	240	10	30	18	35	3HXOL12210-30-R*-**-	\$1,843	3HXOL10-30-R*	\$277	42 (22)
	480	(255)	(915)	(460)	(790)	3HXOL12410-30-R*-**-				
15000	240	10	36	18	31	3HXOL15210-36-R*-**-	\$2,180	3HXOL10-36-R*	\$362	48 (22)
	480	(255)	(915)	(460)	(790)	3HXOL15410-36-R*-**-				
18000	240	10	42	18	25	3HXOL18210-42-R*-**-	\$2,479	3HXOL10-42-R*	\$413	54 (24.5)
	480	(255)	(1065)	(460)	(635)	3HXOL18410-42-R*-**-				

Guard optional, see notation above.

3-phase standard. Single phase available as an option, add "-1" before thermal designator. **Longer lengths available: add \$10 for each vertical inch over standard. Add \$6 per inch for extended guard lengths.

3HX SERIES, 3 ELEMENT FLUOROPOLYMER (PTFE) HEATERS (pg A8)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	OVERALL LENGTH IN. / (mm)	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
1000	120	10	17	3HX1117-**	\$442	HX/3HX17G	\$108	10
	240	(280)	(430)	3HX1217-**				(4.5)
1500	120	16	23	3HX1.5123-**	\$496	HX/3HX23G	\$118	11
	240	(405)	(585)	3HX1.5223-**				(5)
	480			3HX1.5423-**				
2000	240	22	29	3HX2229-**	\$559	HX/3HX29G	\$124	12
	480	(560)	(735)	3HX2429-**				(5.5)
3000	240	29	35	3HX3235-**	\$690	HX/3HX35G	\$130	14
	480	(735)	(890)	3HX3435-**				(6.5)
4000	240	39	47	3HX4247-**	\$915	HX/3HX47G	\$154	17
	480	(990)	(1195)	3HX4447-**				(8)
5000	240	48	59	3HX5259-**	\$1,065	HX/3HX59G	\$180	20
	480	(1220)	(1500)	3HX5459-**				(9)
6000	240	56	68	3HX6268-**	\$1,146	HX/3HX68G	\$204	23
	480	(1420)	(1725)	3HX6468-**				(10.5)

Guard optional.

3-phase standard. Single phase available as an option, add "-1" before thermal designator. Standard guard is polypropylene. Fluoropolymer guards recommended for chromic acid and solutions exceeding 180°F (82°C), consult factory.

6HX SERIES, 6 ELEMENT FLUOROPOLYMER (PTFE) HEATERS (pg A9)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	OVERALL LENGTH IN. / (mm)	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
2000	120	9	17	6HX2117-**	\$719	6HX17G	\$137	19
	240	(230)	(430)	6HX2217-**				(8.5)
	480			6HX2417-**				
3000	240	15	23	6HX3223-**	\$797	6HX23G	\$153	22
	480	(380)	(585)	6HX3423-**				(10)
				6HX3623-**				
4000	240	21	29	6HX4229-**	\$914	6HX29G	\$169	24
	480	(535)	(735)	6HX4429-**				(11)
6000	240	28	35	6HX6235-**	\$1,109	6HX35G	\$187	27
	480	(710)	(890)	6HX6435-**				(12.5)
8000	240	38	47	6HX8247-**	\$1,296	6HX47G	\$219	33
	480	(965)	(1195)	6HX8447-**				(15)
				6HX8647-**				
10000	240	47	59	6HX10259-**	\$1,578	6HX59G	\$286	40
	480	(1195)	(1500)	6HX10459-**				(18)
12000	240	55	68	6HX12268-**	\$1,696	6HX68G	\$329	45
	480	(1400)	(1725)	6HX12468-**				(20.5)

Guard optional, see notation above.

3-phase standard. Single phase available as an option, add "-1" before thermal designator.

9HX SERIES, 9 ELEMENT FLUOROPOLYMER (PTFE) HEATERS (pg A10)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	OVERALL LENGTH IN. / (mm)	MODEL NUMBER	HEATER PRICE	GUARD MODEL NUMBER	GUARD PRICE (add G)	SHIP WT. LBS. / (kg)
3000	240	9	17	9HX3217-**	\$977	9HX17G	\$165	28
	480	(230)	(430)	9HX3417-**				(13)
4500	240	15	23	9HX4.5223-**	\$1,098	9HX23G	\$185	33
	480	(380)	(585)	9HX4.5423-**				(15)
				9HX4.5623-**				
6000	240	21	29	9HX6229-**	\$1,246	9HX29G	\$197	36
	480	(535)	(735)	9HX6429-**				(16.5)
9000	240	28	35	9HX9235-**	\$1,509	9HX35G	\$224	40
	480	(710)	(890)	9HX9435-**				(18)
12000	240	38	47	9HX12247-**	\$1,764	9HX47G	\$258	49
	480	(965)	(1195)	9HX12447-**				(22.5)
15000	240	47	59	9HX15259-**	\$2,151	9HX59G	\$336	60
	480	(1195)	(1500)	9HX15459-**				(27.5)
				9HX15659-**				
18000	240	55	68	9HX18268-**	\$2,314	9HX68G	\$394	67
	480	(1400)	(1725)	9HX18468-**				(30.5)

Guard optional, see notation above.

3-phase standard. Single phase available as an option, add "-1" before thermal designator.

** Specify thermal overload protection desired, see page 2.
Shaded portion of charts indicate the item cannot ship UPS.

HXRL SERIES, FLEX RISER HEATERS (pg A11)								
WATTS	VOLTS (See Pg. 2)	WIDTH IN./ (mm)	LGTH. IN./ (mm)	MODEL NUMBER	PRICE	GUARD MODEL NUMBER	GUARD PRICE	SHIP WT. LBS./ (kg)
1000	120	4	19	HXRL1104-19L-**	\$731	HXRL04-19G	\$93	6
	240	(100)	(485)	HXRL1204-19L-**				(2.5)
1000	120	6	13	HXRL1106-13L-**	\$731	HXRL06-13G	\$93	6
	240	(155)	(330)	HXRL1206-13L-**				(2.5)
1000	120	8	10	HXRL1108-10L-**	\$731	HXRL08-10G	\$93	6
	240	(205)	(255)	HXRL1208-10L-**				(2.5)
2000	120	6	25	HXRL2106-25L-**	\$1,056	HXRL06-25G	\$102	7
	240	(155)	(635)	HXRL2206-25L-**				(3.5)
2000	120	8	19	HXRL2108-19L-**	\$1,056	HXRL08-19G	\$102	7
	240	(205)	(485)	HXRL2208-19L-**				(3.5)
2000	120	10	15	HXRL2110-15L-**	\$1,056	HXRL10-15G	\$102	7
	240	(255)	(380)	HXRL2210-15L-**				(3.5)
2000	120	12	13	HXRL2112-13L-**	\$1,056	HXRL12-13G	\$102	7
	240	(305)	(330)	HXRL2212-13L-**				(3.5)
2000	120	14	11	HXRL2114-11L-**	\$1,056	HXRL14-11G	\$102	7
	240	(355)	(280)	HXRL2214-11L-**				(3.5)
3000	240	10	23	HXRL3210-23L-**	\$1,354	HXRL10-23G	\$110	12
	480	(255)	(585)	HXRL3410-23L-**				(5.5)
3000	240	12	19	HXRL3212-19L-**	\$1,354	HXRL12-19G	\$110	12
	480	(305)	(485)	HXRL3412-19L-**				(5.5)
3000	240	14	16	HXRL3214-16L-**	\$1,354	HXRL14-16G	\$110	12
	480	(355)	(405)	HXRL3414-16L-**				(5.5)
3000	240	16	14	HXRL3216-14L-**	\$1,354	HXRL16-14G	\$110	12
	480	(405)	(355)	HXRL3416-14L-**				(5.5)
3000	240	18	13	HXRL3218-13L-**	\$1,354	HXRL18-13G	\$110	12
	480	(460)	(330)	HXRL3418-13L-**				(5.5)
4000	240	12	25	HXRL4212-25L-**	\$1,442	HXRL12-25G	\$117	14
	480	(305)	(635)	HXRL4412-25L-**				(6.5)
4000	240	14	22	HXRL4214-22L-**	\$1,442	HXRL14-22G	\$117	14
	480	(355)	(560)	HXRL4414-22L-**				(6.5)
4000	240	16	19	HXRL4216-19L-**	\$1,442	HXRL16-19G	\$117	14
	480	(405)	(485)	HXRL4416-19L-**				(6.5)
4000	240	18	17	HXRL4218-17L-**	\$1,442	HXRL18-17G	\$117	14
	480	(460)	(430)	HXRL4418-17L-**				(6.5)
4000	240	20	15	HXRL4220-15L-**	\$1,442	HXRL20-15G	\$117	14
	480	(510)	(380)	HXRL4420-15L-**				(6.5)
5000	240	12	31	HXRL5212-31L-**	\$1,612	HXRL12-31G	\$125	17
	480	(305)	(790)	HXRL5412-31L-**				(8)
5000	240	14	27	HXRL5214-27L-**	\$1,612	HXRL14-27G	\$125	17
	480	(355)	(685)	HXRL5414-27L-**				(8)
5000	240	16	23	HXRL5216-23L-**	\$1,612	HXRL16-23G	\$125	17
	480	(405)	(585)	HXRL5416-23L-**				(8)
5000	240	18	21	HXRL5218-21L-**	\$1,612	HXRL18-21G	\$125	17
	480	(460)	(535)	HXRL5418-21L-**				(8)
6000	240	12	36	HXRL6212-36L-**	\$1,787	HXRL12-36G	\$125	20
	480	(305)	(915)	HXRL6412-36L-**				(9)
6000	240	14	30	HXRL6214-30L-**	\$1,787	HXRL14-30G	\$125	20
	480	(355)	(765)	HXRL6414-30L-**				(9)
6000	240	16	26	HXRL6216-26L-**	\$1,787	HXRL16-26G	\$125	20
	480	(405)	(660)	HXRL6416-26L-**				(9)
6000	240	20	21	HXRL6220-21L-**	\$1,787	HXRL20-21G	\$125	20
	480	(510)	(535)	HXRL6420-21L-**				(9)

*2000 watt heaters available at 120 volt, consult factory.

HXOL SERIES, FLEX RISER HEATERS (pg A12)								
WATTS	VOLTS (See Pg. 2)	WIDTH IN./ (mm)	LGTH. IN./ (mm)	MODEL NUMBER	PRICE	GUARD MODEL NUMBER	GUARD PRICE	SHIP WT. LBS./ (kg)
1000	120	2	11	HXOL1102-11L-**	\$731	HXOL02-11G	\$93	6
	240	(50)	(280)	HXOL1202-11L-**				(2.5)
1000	120	4	8	HXOL1104-08L-**	\$731	HXOL04-08G	\$93	6
	240	(100)	(205)	HXOL1204-08L-**				(2.5)
2000	120	4	13	HXOL2104-13L-**	\$1,056	HXOL04-13G	\$102	7
	240	(100)	(330)	HXOL2204-13L-**				(3.5)
2000	120	5	10	HXOL2105-10L-**	\$1,056	HXOL05-10G	\$102	7
	240	(125)	(255)	HXOL2205-10L-**				(3.5)
2000	120	6	8	HXOL2106-08L-**	\$1,056	HXOL06-08G	\$102	7
	240	(155)	(205)	HXOL2206-08L-**				(3.5)
3000	240	4	18	HXOL3204-18L-**	\$1,354	HXOL04-18G	\$110	12
	480	(100)	(460)	HXOL3404-18L-**				(5.5)
3000	240	5	12	HXOL3205-12L-**	\$1,354	HXOL05-12G	\$110	12
	480	(125)	(305)	HXOL3405-12L-**				(5.5)
3000	240	6	11	HXOL3206-11L-**	\$1,354	HXOL06-11G	\$110	12
	480	(155)	(280)	HXOL3406-11L-**				(5.5)
3000	240	8	8	HXOL3208-08L-**	\$1,354	HXOL08-08G	\$110	12
	480	(205)	(205)	HXOL3408-08L-**				(5.5)
4000	240	5	18	HXOL4205-18L-**	\$1,442	HXOL05-18G	\$117	14
	480	(125)	(460)	HXOL4405-18L-**				(6.5)
4000	240	6	14	HXOL4206-14L-**	\$1,442	HXOL06-14G	\$117	14
	480	(155)	(355)	HXOL4406-14L-**				(6.5)
4000	240	8	11	HXOL4208-11L-**	\$1,442	HXOL08-11G	\$117	14
	480	(205)	(280)	HXOL4408-11L-**				(6.5)
5000	240	6	18	HXOL5206-18L-**	\$1,612	HXOL06-18G	\$125	17
	480	(155)	(460)	HXOL5406-18L-**				(8)
5000	240	8	13	HXOL5208-13L-**	\$1,612	HXOL08-13G	\$125	17
	480	(205)	(330)	HXOL5408-13L-**				(8)
5000	240	9	11	HXOL5209-11L-**	\$1,612	HXOL09-11G	\$125	17
	480	(230)	(280)	HXOL5409-11L-**				(8)
5000	240	10	10	HXOL5210-10L-**	\$1,612	HXOL10-10G	\$125	17
	480	(255)	(255)	HXOL5410-10L-**				(8)
6000	240	7	18	HXOL6207-18L-**	\$1,787	HXOL07-18G	\$125	20
	480	(180)	(460)	HXOL6407-18L-**				(9)
6000	240	8	15	HXOL6208-15L-**	\$1,787	HXOL08-15G	\$125	20
	480	(205)	(380)	HXOL6408-15L-**				(9)
6000	240	9	13	HXOL6209-13L-**	\$1,787	HXOL09-13G	\$125	20
	480	(230)	(330)	HXOL6409-13L-**				(9)
6000	240	10	12	HXOL6210-12L-**	\$1,787	HXOL10-12G	\$125	20
	480	(255)	(305)	HXOL6410-12L-**				(9)
6000	240	11	11	HXOL6211-11L-**	\$1,787	HXOL11-11G	\$125	20
	480	(280)	(280)	HXOL6411-11L-**				(9)

HXRL, HXSL and HXOL heaters are provided with 4' (1.3 m) of flexible continuous fluoropolymer leads as standard. Longer lengths are available at \$4 per inch (2.54 cm). Rigid risers can also be provided, consult factory.

IMPORTANT NOTICE:

Flexible lead fluoropolymer covered heaters are normally equipped with a Protector 3 overtemperature device which requires a special P3-A circuit board or appropriate temperature control for proper operation. Do not wire this device as indicated for the Protector 1 (P1) or Protector 2 (P2), as a dangerous short circuit will result.

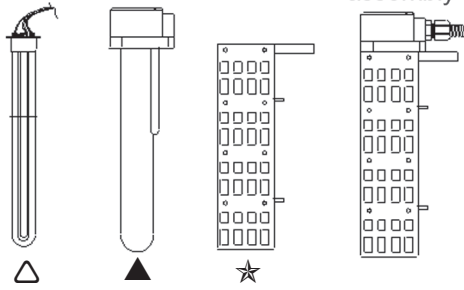
Consult factory and installation instructions for P1 or P2 option on rigid riser models.

HXSL SERIES, FLEX RISER HEATERS (pg A13)						
WATTS	VOLTS (See Pg. 2)	WIDTH 7 (mm)	LGTH. IN./ (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS./ (kg)
1000	120	†	†	HXSL1000-**	\$796	6
	240					(2.5)
2000	120	†	†	HXSL2000-**	\$898	7
	240					(3.5)
	480					
3000	240	†	†	HXSL3000-**	\$1,246	12
	480					(5.5)
4000	240	†	†	HXSL4000-**	\$1,324	14
	480					(6.5)
5000	240	†	†	HXSL5000-**	\$1,508	17
	480					(8)
6000	240	†	†	HXSL6000-**	\$1,681	20
	480					(9)

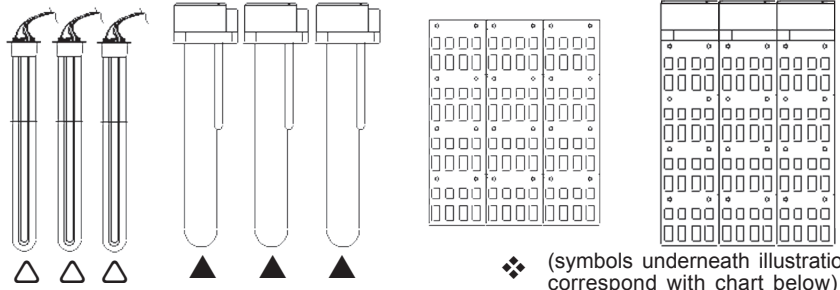
† HXSL heaters are built to conform to inside tank dimensions. Please consult factory for model numbers for specific heaters.

** Specify thermal overload protection desired, see page 2.

Each single tube quartz heater consists of:
 Heating element + Quartz tube + Single guard = Complete QM heater assembly



Each triple tube quartz heater consists of elements, 3 quartz tubes and guard to create a complete triple tube quartz heater:
 3 heating elements + 3 quartz tubes + Triple guard = Complete 3QM heater assembly



❖ (symbols underneath illustrations correspond with chart below)

QM SERIES, QUARTZ HEATERS WITH METAL ELEMENTS† (pg A14)							QM & 3QM SERIES GUARDS				SHIP WEIGHTS		
WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	ELEMENT MODEL NUMBER	PRICE ELEMENT	TUBE MODEL NUMBER	PRICE QUARTZ TUBE	SINGLE GUARD MODEL #	PRICE GUARD	TRIPLE GUARD MODEL #	PRICE GUARD	SINGLE ASSEMBLY SHIP WT. LBS./ (kg)	TRIPLE ASSEMBLY SHIP WT. LBS./ (kg)
500	120	7	10	QM.5110E	\$147	QM.5110J**	\$96	QM10G	\$73	3QM10G	\$137	9	21
	240	(180)	(255)	QM.5210E		QM.5210J**						(4)	(10)
1000	120	7	11	QM1111E	\$149	QM1111J**	\$97	QM11G	\$83	3QM11G	\$145	10	22
	240	(180)	(280)	QM1211E		QM1211J**						(4.5)	(10)
1000	120	7	17	QM1117E	\$171	QM1117J**	\$123	QM17G	\$89	3QM17G	\$167	11	26
	240	(180)	(430)	QM1217E		QM1217J**						(5)	(12)
2000	240	12	17	QM2217E	\$199	QM2217J**	\$143	QM23G	\$98	3QM23G	\$179	11	26
	480	(305)	(430)	QM2417E		QM2417J**						(5)	(12)
2000	240	12	23	QM2223E	\$232	QM2223J**	\$156	QM29G	\$107	3QM29G	\$201	14	30
	480	(305)	(585)	QM2423E		QM2423J**						(6.5)	(14)
3000	240	18	23	QM3223E	\$243	QM3223J**	\$173	QM35G	\$117	3QM35G	\$211	14	30
	480	(460)	(585)	QM3423E		QM3423J**						(6.5)	(14)
3000	240	18	29	QM3229E	\$271	QM3229J**	\$199	QM41G	\$127	3QM41G	\$237	17	34
	480	(460)	(735)	QM3429E		QM3429J**						(8)	(15.5)
3500	240	21	29	QM3.5229E	\$327	QM3.5229J**	\$212	QM47G	\$137	3QM47G	\$244	17	34
	480	(535)	(735)	QM3.5429E		QM3.5429J**						(8)	(15.5)
4000	240	28	35	QM4235E	\$355	QM4235J**	\$225	QM52G	\$152	3QM52G	\$253	20	38
	480	(710)	(890)	QM4435E		QM4435J**						(9)	(17)
4000	240	28	41	QM4241E	\$380	QM4241J**	\$233	QM59G	\$174	3QM59G	\$279	23	44
	480	(710)	(1040)	QM4441E		QM4441J**						(10.5)	(20)
5000	240	33	41	QM5241E	\$455	QM5241J**	\$274	QM71G	\$174	3QM71G	\$279	23	44
	480	(840)	(1040)	QM5441E		QM5441J**						(10.5)	(20)
5000	240	33	47	QM5247E	\$327	QM5247J**	\$212	QM47G	\$127	3QM47G	\$237	26	48
	480	(840)	(1195)	QM5447E		QM5447J**						(12)	(22)
6000	240	39	47	QM6247E	\$355	QM6247J**	\$225	QM52G	\$137	3QM52G	\$244	26	48
	480	(990)	(1195)	QM6447E		QM6447J**						(12)	(22)
6000	240	39	52	QM6252E	\$380	QM6252J**	\$233	QM59G	\$152	3QM59G	\$253	29	52
	480	(990)	(1320)	QM6452E		QM6452J**						(13)	(24)
8000	240	49	59	QM8259E	\$455	QM8259J**	\$274	QM71G	\$174	3QM71G	\$279	31	55
	480	(1245)	(1500)	QM8459E		QM8459J**						(14)	(25)
10000	240	62	71	QM10271E	\$455	QM10271J**	\$274	QM71G	\$174	3QM71G	\$279	34	65
	480	(1575)	(1805)	QM10471E		QM10471J**						(15.5)	(30)

† Single phase standard, three phase available - add "-3" after element designator and/or before thermal designator on quartz tubes, no extra charge. Standard guard is polypropylene. Fluoropolymer guard available and is recommended for chromic acid (no fluorides) - consult factory for pricing.
 ** Specify thermal overload protection desired, see page 2.

SmartOne® HEATERS

SmartOne® S1 SERIES, METAL OVER-THE-SIDE HEATERS (page S1)										
WATTS	VOLTS	HOT ZONE IN./ (mm)	OVERALL LENGTH IN./ (mm)	304 STAINLESS MODEL NUMBER	304 SS LIST PRICE	316 STAINLESS MODEL NUMBER	316 SS LIST PRICE	TITANIUM MODEL NUMBER	TITANIUM LIST PRICE	SHIP WEIGHT LBS./ (kg)
1000	100-120	7	11	S1F1111	\$178	S1S1111	\$187	S1T1111	\$231	7
	200-240	(178)	(279)	S1F1211		S1S1211		S1T1211		(3.2)
2000	100-120	13	17	S1F2117	\$252	S1S2117	\$260	S1T2117	\$318	10
	200-240	(330)	(432)	S1F2217		S1S2217		S1T2217		(4.5)
3000	200-240	18 (457)	23 (584)	S1F3223	\$323	S1S3223	\$330	S1T3223	\$403	11 (5)
4000	200-240	24 (610)	29 (737)	S1F4229	\$407	S1S4229	\$419	S1T4229	\$515	13 (5.9)
5000	200-240	30 (762)	35 (889)	S1F5235	\$484	S1S5235	\$500	S1T5235	\$611	15 (6.8)
6000	200-240	35 (889)	41 (1041)	S1F6241	\$552	S1S6241	\$567	S1T6241	\$699	17 (7.7)
1600	380-480	13 (330)	17 (432)	S1F1.6417	\$252	S1S1.6417	\$260	S1T1.6417	\$318	10 (4.5)
2400	380-480	18 (457)	23 (584)	S1F2.4423	\$323	S1S2.4423	\$330	S1T2.4423	\$403	11 (5)
3200	380-480	24 (610)	29 (737)	S1F3.2429	\$407	S1S3.2429	\$419	S1T3.2429	\$515	13 (5.9)
4000	380-480	30 (762)	35 (889)	S1F4435	\$484	S1S4435	\$500	S1T4435	\$611	15 (6.8)
4800	380-480	35 (889)	41 (1041)	S1F4.8441	\$552	S1S4.8441	\$567	S1T4.8441	\$699	17 (7.7)
5600	380-480	41 (1041)	47 (1194)	S1F5.6447	\$616	S1S5.6447	\$631	S1T5.6447	\$788	23 (10.4)

Single phase standard, add "-3" for three phase.

SmartOne® S13 SERIES, TRIPLE METAL OVER-THE-SIDE HEATERS (page S2)

WATTS	VOLTS	HOT ZONE IN./(mm)	OVERALL LENGTH IN./(mm)	304 STAINLESS MODEL NUMBER	304 SS LIST PRICE	316 STAINLESS MODEL NUMBER	316 SS LIST PRICE	TITANIUM MODEL NUMBER	TITANIUM LIST PRICE	SHIP WEIGHT LBS./(kg)
3000	200-240	7 (178)	11 (279)	S13F3211	\$459	S13S3211	\$483	S13T3211	\$616	21 (9.5)
6000	200-240	13 (330)	17 (432)	S13F6217	\$641	S13S6217	\$663	S13T6217	\$834	30 (13.6)
9000	200-240	18 (457)	23 (584)	S13F9223	\$858	S13S9223	\$887	S13T9223	\$1,115	33 (15)
12000	200-240	24 (610)	29 (737)	S13F12229	\$1,064	S13S12229	\$1,091	S13T12229	\$1,381	39 (17.7)
15000	200-240	30 (762)	35 (889)	S13F15235	\$1,283	S13S15235	\$1,333	S13T15235	\$1,651	45 (20.4)
18000	200-240	35 (889)	41 (1041)	S13F18241	\$1,674	S13S18241	\$1,705	S13T18241	\$1,938	51 (23.1)
2400	380-480	7 (178)	11 (279)	S13F2.4411	\$459	S13S2.4411	\$483	S13T2.4411	\$616	21 (9.5)
4800	380-480	13 (330)	17 (432)	S13F4.8417	\$641	S13S4.8417	\$663	S13T4.8417	\$834	30 (13.6)
7200	380-480	18 (457)	23 (584)	S13F7.2423	\$858	S13S7.2423	\$887	S13T7.2423	\$1,115	33 (15)
9600	380-480	24 (610)	29 (737)	S13F9.6429	\$1,064	S13S9.6429	\$1,091	S13T9.6429	\$1,381	39 (17.7)
12000	380-480	30 (762)	35 (889)	S13F12435	\$1,283	S13S12435	\$1,333	S13T12435	\$1,651	45 (20.4)
14400	380-480	35 (889)	41 (1041)	S13F14.4441	\$1,674	S13S14.4441	\$1,705	S13T14.4441	\$1,938	51 (23.1)
16800	380-480	41 (1041)	47 (1194)	S13F16.8447	\$1,757	S13S16.8447	\$1,786	S13T16.8447	\$2,238	70 (31.8)

Three phase standard, add "-1" for single phase. For individual heads, order three single tube heaters.

SmartOne® S1L SERIES, METAL BOTTOM HEATERS (page S3)

WATTS	VOLTS	HORIZONTAL LENGTH IN./(mm)	VERTICAL LENGTH IN./(mm)	304 STAINLESS MODEL NUMBER	304 SS LIST PRICE	316 STAINLESS MODEL NUMBER	316 SS LIST PRICE	TITANIUM MODEL NUMBER	TITANIUM LIST PRICE	SHIP WEIGHT LBS./(kg)
1000	100-120 200-240	13 (330)	15 (381)	S1LF1113-R** S1LF1213-R**	\$318	S1LS1113-R** S1LS1213-R**	\$329	S1LT1113-R** S1LT1213-R**	\$441	10 (4.5)
2000	100-120 200-240	17 (432)	19 (483)	S1LF2117-R** S1LF2217-R**	\$392	S1LS2117-R** S1LS2217-R**	\$403	S1LT2117-R** S1LT2217-R**	\$493	11 (5)
3000	200-240	23 (584)	25 (635)	S1LF3223-R**	\$463	S1LS3223-R**	\$475	S1LT2217-R**	\$581	12 (5.4)
4000	200-240	29 (737)	25 (635)	S1LF4229-R**	\$534	S1LS4229-R**	\$545	S1LT4229-R**	\$668	13 (5.9)
5000	200-240	35 (889)	37 (940)	S1LF5235-R**	\$610	S1LS5235-R**	\$621	S1LT5235-R**	\$775	14 (6.4)
6000	200-240	41 (1041)	50 (1270)	S1LF6241-R**	\$681	S1LS6241-R**	\$695	S1LT6241-R**	\$867	15 (6.8)
1600	380-480	17 (432)	19 (483)	S1LF1.6417-R**	\$392	S1LS1.6417-R**	\$403	S1LT1.6417-R**	\$493	11 (5)
2400	380-480	23 (584)	25 (635)	S1LF2.4423-R**	\$463	S1LS2.4423-R**	\$475	S1LT2.4423-R**	\$581	12 (5.4)
3200	380-480	29 (737)	25 (635)	S1LF3.2429-R**	\$534	S1LS3.2429-R**	\$545	S1LT3.2429-R**	\$668	13 (5.9)
4000	380-480	35 (889)	37 (940)	S1LF4435-R**	\$610	S1LS4435-R**	\$621	S1LT4435-R**	\$775	14 (6.4)
4800	380-480	41 (1041)	50 (1270)	S1LF4.8441-R**	\$681	S1LS4.8441-R**	\$695	S1LT4.8441-R**	\$867	15 (6.8)
5600	380-480	47 (1194)	50 (1270)	S1LF5.6447-R**	\$747	S1LS5.6447-R**	\$761	S1LT5.6447-R**	\$953	18 (8.2)

** Specify riser length. Single phase standard, add "-3" for three phase.

SmartOne® S13L SERIES, TRIPLE METAL BOTTOM HEATERS (page S4)

WATTS	VOLTS	HORIZONTAL LENGTH IN./(mm)	VERTICAL LENGTH IN./(mm)	304 STAINLESS MODEL NUMBER	304 SS LIST PRICE	316 STAINLESS MODEL NUMBER	316 SS LIST PRICE	TITANIUM MODEL NUMBER	TITANIUM LIST PRICE	SHIP WEIGHT LBS./(kg)
3000	200-240	13 (330)	15 (381)	S13LF3213-R**	\$579	S13LS3213-R**	\$590	S13LT3213-R**	\$830	30 (13.6)
6000	200-240	17 (432)	37 (940)	S13LF6217-R**	\$806	S13LS6217-R**	\$817	S13LT6217-R**	\$1,048	33 (15)
9000	200-240	23 (584)	37 (940)	S13LF9223-R**	\$1,031	S13LS9223-R**	\$1,041	S13LT9223-R**	\$1,333	36 (16.3)
12000	200-240	29 (737)	37 (940)	S13LF12229-R**	\$1,237	S13LS12229-R**	\$1,242	S13LT12229-R**	\$1,405	39 (17.7)
15000	200-240	35 (889)	37 (940)	S13LF15235-R**	\$1,476	S13LS15235-R**	\$1,484	S13LT15235-R**	\$1,861	42 (19)
18000	200-240	41 (1041)	50 (1270)	S13LF18241-R**	\$1,829	S13LS18241-R**	\$1,836	S13LT18241-R**	\$2,154	45 (20.4)
2400	380-480	13 (330)	15 (381)	S13LF2.4413-R**	\$579	S13LS2.4413-R**	\$590	S13LT2.4413-R**	\$830	30 (13.6)
4800	380-480	17 (432)	37 (940)	S13LF4.8417-R**	\$806	S13LS4.8417-R**	\$817	S13LT4.8417-R**	\$1,048	33 (15)
7200	380-480	23 (584)	37 (940)	S13LF7.2423-R**	\$1,031	S13LS7.2423-R**	\$1,041	S13LT7.2423-R**	\$1,333	36 (16.3)
9600	380-480	29 (737)	37 (940)	S13LF9.6429-R**	\$1,237	S13LS9.6429-R**	\$1,242	S13LT9.6429-R**	\$1,405	39 (17.7)
12000	380-480	35 (889)	37 (940)	S13LF12435-R**	\$1,476	S13LS12435-R**	\$1,484	S13LT12435-R**	\$1,861	42 (19)
14400	380-480	41 (1041)	50 (1270)	S13LF14.4441-R**	\$1,829	S13LS14.4441-R**	\$1,836	S13LT14.4441-R**	\$2,154	45 (20.4)
16800	380-480	47 (1194)	50 (1270)	S13LF16.8447-R**	\$1,907	S13LS16.8447-R**	\$1,914	S13LT16.8447-R**	\$2,446	67 (30.4)

** Specify riser length. Three phase standard, add "-1" for single phase.

SmartOne® S1T SERIES, 2" TUBULAR SCREW PLUG HEATERS (page S5)

WATTS	VOLTS	PIPE THREAD	OVERALL LENGTH IN./(mm)	304 STAINLESS MODEL NUMBER IN./(mm)	304 SS LIST PRICE	316 STAINLESS MODEL NUMBER	316 SS LIST PRICE	TITANIUM MODEL NUMBER	TITANIUM LIST PRICE	SHIP WEIGHT LBS./(kg)
1000	100-120 200-240	2" NPT	10 (254)	S1FT1110 S1FT1210	\$333	S1ST1110 S1ST1210	\$361	S1TT1110 S1TT1210	\$826	11 (5)
2000	100-120 200-240	2" NPT	14 (356)	S1FT2114 S1FT2214	\$410	S1ST2114 S1ST2214	\$438	S1TT2114 S1TT2214	\$942	14 (6.4)
3000	200-240	2" NPT	20 (508)	S1FT2214	\$483	S1ST3220	\$536	S1TT3220	\$1,061	16 (7.3)
4000	200-240	2" NPT	26 (660)	S1FT4226	\$558	S1ST4226	\$641	S1TT4226	\$1,189	20 (9.1)
5000	200-240	2" NPT	31 (787)	S1FT5231	\$642	S1ST5231	\$752	S1TT5231	\$1,320	26 (11.8)
6000	200-240	2" NPT	37 (940)	S1FT6237	\$714	S1ST6237	\$853	S1TT6237	\$1,443	29 (13.2)
1600	380-480	2" NPT	14 (356)	S1FT1.6414	\$410	S1ST1.6414	\$438	S1TT1.6414	\$942	14 (6.4)
2400	380-480	2" NPT	20 (508)	S1FT2.4420	\$483	S1ST2.4420	\$536	S1TT2.4420	\$1,061	16 (7.3)
3200	380-480	2" NPT	26 (660)	S1FT3.2426	\$558	S1ST3.2426	\$641	S1TT3.2426	\$1,189	20 (9.1)
4000	380-480	2" NPT	31 (787)	S1FT4431	\$642	S1ST4431	\$752	S1TT4431	\$1,320	26 (11.8)
4800	380-480	2" NPT	37 (940)	S1FT4.8437	\$714	S1ST4.8437	\$853	S1TT4.8437	\$1,443	29 (13.2)
5600	380-480	2" NPT	43 (1092)	S1FT5.6443	\$781	S1ST5.6443	\$956	S1TT5.6443	\$1,568	32 (14.5)

8 Single phase standard, add "-3" for three phase.

P, F, S & T SERIES, METAL OVER THE SIDE HEATERS (Single Phase Standard)[†] (pg. A20)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS./ (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
1000	120	6	11	P1111-*.**	\$139	F1111-*.**	\$146	S1111-*.**	\$157	T1111-*.**	\$211	7
	240	(155)	(280)	P1211-*.**		F1211-*.**		S1211-*.**		T1211-*.**		(3.5)
2000	240	10	17	P2217-*.**	\$155	F2217-*.**	\$172	S2217-*.**	\$194	T2217-*.**	\$280	10
	480	(255)	(430)	P2417-*.**		F2417-*.**		S2417-*.**		T2417-*.**		(4.5)
3000	240	16	23	P3223-*.**	\$169	F3223-*.**	\$194	S3223-*.**	\$212	T3223-*.**	\$315	11
	480	(405)	(585)	P3423-*.**		F3423-*.**		S3423-*.**		T3423-*.**		(5)
4000	240	20	29	P4229-*.**	\$186	F4229-*.**	\$212	S4229-*.**	\$226	T4229-*.**	\$378	13
	480	(510)	(735)	P4429-*.**		F4429-*.**		S4429-*.**		T4429-*.**		(6)
5000	240	25	35	P5235-*.**	\$213	F5235-*.**	\$243	S5235-*.**	\$264	T5235-*.**	\$440	15
	480	(635)	(890)	P5435-*.**		F5435-*.**		S5435-*.**		T5435-*.**		(7)
6000	240	30	40	P6240-*.**	\$222	F6240-*.**	\$262	S6240-*.**	\$284	T6240-*.**	\$470	17
	480	(762)	(1015)	P6440-*.**		F6440-*.**		S6440-*.**		T6440-*.**		(8)
8000	240	37	47	P8247-*.**	\$280	F8247-*.**	\$314	S8247-*.**	\$344	T8247-*.**	\$541	23
	480	(940)	(1195)	P8447-*.**		F8447-*.**		S8447-*.**		T8447-*.**		(10.5)
9000	240	44	54	P9254-*.**	\$312	F9254-*.**	\$350	S9254-*.**	\$369	T9254-*.**	\$596	24
	480	(1120)	(1370)	P9454-*.**		F9454-*.**		S9454-*.**		T9454-*.**		(11)
10000	240	49	59	P10259-*.**	\$330	F10259-*.**	\$406	S10259-*.**	\$445	T10259-*.**	\$703	25
	480	(1245)	(1500)	P10459-*.**		F10459-*.**		S10459-*.**		T10459-*.**		(11.5)
12000	240	58	68	P12468-*.**	\$362	F12468-*.**	\$445	S12468-*.**	\$488	T12468-*.**	\$805	28
	480	(1475)	(1730)									(13)

[†] Three phase available as option for 10% additional - add "-3" before thermal designator.

3P, 3F, 3S & 3T SERIES, TRIPLE METAL OVER THE SIDE HEATERS^{††} (pg. A21)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS./ (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
3000	240	6	11	3P3211-*.**	\$417	3F3211-*.**	\$439	3S3211-*.**	\$470	3T3211-*.**	\$633	21
	480	(155)	(280)	3P3411-*.**		3F3411-*.**		3S3411-*.**		3T3411-*.**		(9.5)
6000	240	10	17	3P6217-*.**	\$464	3F6217-*.**	\$516	3S6217-*.**	\$581	3T6217-*.**	\$840	30
	480	(255)	(430)	3P6417-*.**		3F6417-*.**		3S6417-*.**		3T6417-*.**		(14)
9000	240	16	23	3P9223-*.**	\$507	3F9223-*.**	\$581	3S9223-*.**	\$637	3T9223-*.**	\$946	33
	480	(405)	(585)	3P9423-*.**		3F9423-*.**		3S9423-*.**		3T9423-*.**		(15)
12000	240	20	29	3P12229-*.**	\$559	3F12229-*.**	\$637	3S12229-*.**	\$677	3T12229-*.**	\$1,134	39
	480	(510)	(735)	3P12429-*.**		3F12429-*.**		3S12429-*.**		3T12429-*.**		(18)
15000	240	25	35	3P15235-*.**	\$640	3F15235-*.**	\$729	3S15235-*.**	\$791	3T15235-*.**	\$1,319	45
	480	(635)	(890)	3P15435-*.**		3F15435-*.**		3S15435-*.**		3T15435-*.**		(20.5)
18000	240	30	40	3P18240-*.**	\$667	3F18240-*.**	\$785	3S18240-*.**	\$853	3T18240-*.**	\$1,409	51
	480	(762)	(1015)	3P18440-*.**		3F18440-*.**		3S18440-*.**		3T18440-*.**		(23)
24000	240	37	47	3P24247-*.**	\$840	3F24247-*.**	\$942	3S24247-*.**	\$1,032	3T24247-*.**	\$1,622	63
	480	(940)	(1195)	3P24447-*.**		3F24447-*.**		3S24447-*.**		3T24447-*.**		(28.5)
27000	240	44	54	3P27454-*.**	\$936	3F27454-*.**	\$1,051	3S27454-*.**	\$1,106	3T27454-*.**	\$1,789	69
	480	(1120)	(1370)									(31)
30000	240	49	59	3P30459-*.**	\$989	3F30459-*.**	\$1,217	3S30459-*.**	\$1,335	3T30459-*.**	\$2,110	75
	480	(1245)	(1500)									(34)
36000	240	58	68	3P36468-*.**	\$1,085	3F36468-*.**	\$1,335	3S36468-*.**	\$1,465	3T36468-*.**	\$2,445	84
	480	(1475)	(1730)									(38)

^{††} Standard is single head and conduit. * Add "-1" for single phase or "-3" for three phase. For individual heads, order 3 single tube heaters.

D SERIES, DERATED METAL OVER THE SIDE HEATERS (Single Phase Standard)[†] (pg A22)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS./ (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
500	120	6	11	DP.5111-*.**	\$139	DF.5111-*.**	\$146	DS.5111-*.**	\$157	DT.5111-*.**	\$211	7
	240	(155)	(280)	DP.5211-*.**		DF.5211-*.**		DS.5211-*.**		DT.5211-*.**		(3.5)
1000	240	10	17	DP1217-*.**	\$155	DF1217-*.**	\$172	DS1217-*.**	\$194	DT1217-*.**	\$280	10
	480	(255)	(430)	DP1417-*.**		DF1417-*.**		DS1417-*.**		DT1417-*.**		(4.5)
1500	240	16	23	DP1.5223-*.**	\$169	DF1.5223-*.**	\$194	DS1.5223-*.**	\$212	DT1.5223-*.**	\$315	11
	480	(405)	(585)	DP1.5423-*.**		DF1.5423-*.**		DS1.5423-*.**		DT1.5423-*.**		(5)
2000	240	20	29	DP2229-*.**	\$186	DF2229-*.**	\$212	DS2229-*.**	\$226	DT2229-*.**	\$378	13
	480	(510)	(735)	DP2429-*.**		DF2429-*.**		DS2429-*.**		DT2429-*.**		(6)
2500	240	25	35	DP2.5235-*.**	\$213	DF2.5235-*.**	\$243	DS2.5235-*.**	\$264	DT2.5235-*.**	\$440	15
	480	(635)	(890)	DP2.5435-*.**		DF2.5435-*.**		DS2.5435-*.**		DT2.5435-*.**		(7)
3000	240	30	40	DP3240-*.**	\$222	DF3240-*.**	\$262	DS3240-*.**	\$284	DT3240-*.**	\$470	17
	480	(762)	(1015)	DP3440-*.**		DF3440-*.**		DS3440-*.**		DT3440-*.**		(8)
4000	240	37	47	DP4247-*.**	\$280	DF4247-*.**	\$314	DS4247-*.**	\$344	DT4247-*.**	\$541	23
	480	(940)	(1195)	DP4447-*.**		DF4447-*.**		DS4447-*.**		DT4447-*.**		(10.5)
4500	240	44	54	DP4.5254-*.**	\$312	DF4.5254-*.**	\$350	DS4.5254-*.**	\$369	DT4.5254-*.**	\$596	24
	480	(1120)	(1370)	DP4.5454-*.**		DF4.5454-*.**		DS4.5454-*.**		DT4.5454-*.**		(11)
5000	240	49	59	DP5259-*.**	\$330	DF5259-*.**	\$406	DS5259-*.**	\$445	DT5259-*.**	\$703	25
	480	(1245)	(1500)	DP5459-*.**		DF5459-*.**		DS5459-*.**		DT5459-*.**		(11.5)
6000	240	58	68	DP6268-*.**	\$362	DF6268-*.**	\$445	DS6268-*.**	\$488	DT6268-*.**	\$805	28
	480	(1475)	(1730)	DP6468-*.**		DF6468-*.**		DS6468-*.**		DT6468-*.**		(13)

[†] Three phase available as option for 10% additional - add "-3" before thermal designator.

** Specify thermal overload protection desired, see page 2.

D3 SERIES, DERATED TRIPLE METAL OVER THE SIDE HEATERS^{††} (pg A23)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS. / (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
1500	120	6	11	D3P1.5111-R ^{***}	\$417	D3F1.5111-R ^{***}	\$439	D3S1.5111-R ^{***}	\$470	D3T1.5111-R ^{***}	\$633	21
	240	(155)	(280)	D3P1.5211-R ^{***}		D3F1.5211-R ^{***}		D3S1.5211-R ^{***}		D3T1.5211-R ^{***}		(9.5)
3000	240	10	17	D3P3217-R ^{***}	\$464	D3F3217-R ^{***}	\$516	D3S3217-R ^{***}	\$581	D3T3217-R ^{***}	\$840	30
	480	(255)	(430)	D3P3417-R ^{***}		D3F3417-R ^{***}		D3S3417-R ^{***}		D3T3417-R ^{***}		(14)
4500	240	16	23	D3P4.5223-R ^{***}	\$507	D3F4.5223-R ^{***}	\$581	D3S4.5223-R ^{***}	\$637	D3T4.5223-R ^{***}	\$946	33
	480	(405)	(585)	D3P4.5423-R ^{***}		D3F4.5423-R ^{***}		D3S4.5423-R ^{***}		D3T4.5423-R ^{***}		(15)
6000	240	20	29	D3P6229-R ^{***}	\$559	D3F6229-R ^{***}	\$637	D3S6229-R ^{***}	\$677	D3T6229-R ^{***}	\$1,134	39
	480	(510)	(735)	D3P6429-R ^{***}		D3F6429-R ^{***}		D3S6429-R ^{***}		D3T6429-R ^{***}		(18)
7500	240	25	35	D3P7.5235-R ^{***}	\$640	D3F7.5235-R ^{***}	\$729	D3S7.5235-R ^{***}	\$791	D3T7.5235-R ^{***}	\$1,319	45
	480	(635)	(890)	D3P7.5435-R ^{***}		D3F7.5435-R ^{***}		D3S7.5435-R ^{***}		D3T7.5435-R ^{***}		(20.5)
9000	240	30	40	D3P9240-R ^{***}	\$667	D3F9240-R ^{***}	\$785	D3S9240-R ^{***}	\$853	D3T9240-R ^{***}	\$1,409	51
	480	(762)	(1015)	D3P9440-R ^{***}		D3F9440-R ^{***}		D3S9440-R ^{***}		D3T9440-R ^{***}		(23)
12000	240	37	47	D3P12247-R ^{***}	\$840	D3F12247-R ^{***}	\$942	D3S12247-R ^{***}	\$1,032	D3T12247-R ^{***}	\$1,622	63
	480	(940)	(1195)	D3P12447-R ^{***}		D3F12447-R ^{***}		D3S12447-R ^{***}		D3T12447-R ^{***}		(28.5)
13500	240	44	54	D3P13.5254-R ^{***}	\$936	D3F13.5254-R ^{***}	\$1,051	D3S13.5254-R ^{***}	\$1,106	D3T13.5254-R ^{***}	\$1,789	69
	480	(1120)	(1370)	D3P13.5454-R ^{***}		D3F13.5454-R ^{***}		D3S13.5454-R ^{***}		D3T13.5454-R ^{***}		(31)
15000	240	49	59	D3P15259-R ^{***}	\$989	D3F15259-R ^{***}	\$1,217	D3S15259-R ^{***}	\$1,335	D3T15259-R ^{***}	\$2,110	75
	480	(1245)	(1500)	D3P15459-R ^{***}		D3F15459-R ^{***}		D3S15459-R ^{***}		D3T15459-R ^{***}		(34)
18000	240	58	68	D3P18268-R ^{***}	\$1,085	D3F18268-R ^{***}	\$1,335	D3S18268-R ^{***}	\$1,465	D3T18268-R ^{***}	\$2,445	84
	480	(1475)	(1730)	D3P18468-R ^{***}		D3F18468-R ^{***}		D3S18468-R ^{***}		D3T18468-R ^{***}		(38)

†† Standard is single head and conduit. * Add "-1" for single phase or "-3" for three phase. For individual heads, order 3 single tube heaters.

L SERIES, METAL L-SHAPED HEATERS (Single Phase Standard)[†] (pg A24)

WATTS	VOLTS (See Pg. 2)	HORIZ. IN. / (mm)	STD. VERT. ^{**} IN. / (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS. / (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
1000	120	13	15	LP1113-R ^{***}	\$246	LF1113-R ^{***}	\$279	LS1113-R ^{***}	\$295	LT1113-R ^{***}	\$396	10
	240	(330)	(380)	LP1213-R ^{***}		LF1213-R ^{***}		LS1213-R ^{***}		LT1213-R ^{***}		(4.5)
2000	120	17	19	LP2117-R ^{***}	\$261	LF2117-R ^{***}	\$302	LS2117-R ^{***}	\$322	LT2117-R ^{***}	\$462	11
	240	(430)	(485)	LP2217-R ^{***}		LF2217-R ^{***}		LS2217-R ^{***}		LT2217-R ^{***}		(5)
3000	240	22	25	LP3222-R ^{***}	\$296	LF3222-R ^{***}	\$334	LS3222-R ^{***}	\$365	LT3222-R ^{***}	\$526	12
	480	(560)	(635)	LP3422-R ^{***}		LF3422-R ^{***}		LS3422-R ^{***}		LT3422-R ^{***}		(5.5)
4000	240	26	25	LP4226-R ^{***}	\$318	LF4226-R ^{***}	\$366	LS4226-R ^{***}	\$391	LT4226-R ^{***}	\$572	13
	480	(660)	(635)	LP4426-R ^{***}		LF4426-R ^{***}		LS4426-R ^{***}		LT4426-R ^{***}		(6)
5000	240	31	37	LP5231-R ^{***}	\$357	LF5231-R ^{***}	\$407	LS5231-R ^{***}	\$428	LT5231-R ^{***}	\$671	14
	480	(790)	(1270)	LP5431-R ^{***}		LF5431-R ^{***}		LS5431-R ^{***}		LT5431-R ^{***}		(6.5)
6000	240	36	50	LP6236-R ^{***}	\$392	LF6236-R ^{***}	\$445	LS6236-R ^{***}	\$470	LT6236-R ^{***}	\$766	15
	480	(915)	(1270)	LP6436-R ^{***}		LF6436-R ^{***}		LS6436-R ^{***}		LT6436-R ^{***}		(7)
8000	240	44	50	LP8244-R ^{***}	\$424	LF8244-R ^{***}	\$472	LS8244-R ^{***}	\$534	LT8244-R ^{***}	\$851	18
	480	(1120)	(1270)	LP8444-R ^{***}		LF8444-R ^{***}		LS8444-R ^{***}		LT8444-R ^{***}		(8)
9000	240	50	50	LP9250-R ^{***}	\$447	LF9250-R ^{***}	\$492	LS9250-R ^{***}	\$564	LT9250-R ^{***}	\$904	20
	480	(1270)	(1270)	LP9450-R ^{***}		LF9450-R ^{***}		LS9450-R ^{***}		LT9450-R ^{***}		(9)
10000	240	55	50	LP10255-R ^{***}	\$489	LF10255-R ^{***}	\$556	LS10255-R ^{***}	\$629	LT10255-R ^{***}	\$963	22
	480	(1400)	(1270)	LP10455-R ^{***}		LF10455-R ^{***}		LS10455-R ^{***}		LT10455-R ^{***}		(10)
12000	240	64	50	LP12464-R ^{***}	\$544	LF12464-R ^{***}	\$607	LS12464-R ^{***}	\$678	LT12464-R ^{***}	\$1,026	25
	480	(1625)	(1270)									(11.5)

† Three phase available as option for 10% additional - add "-3" before riser designator.

**Longer vertical length available - add \$4 per inch (2.54 cm) for steel and stainless steel, or \$6 per inch (2.54 cm) for titanium over standard length.

3L SERIES, TRIPLE METAL L-SHAPED HEATERS (Three Phase Standard)^{†††} (pg A25)

WATTS	VOLTS (See Pg. 2)	HORIZ. IN. / (mm)	STD. VERT. ^{**} IN. / (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS. / (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
3000	240	13	15	3LP3213-R ^{***}	\$445	3LF3213-R ^{***}	\$516	3LS3213-R ^{***}	\$558	3LT3213-R ^{***}	\$786	30
	480	(330)	(380)	3LP3413-R ^{***}		3LF3413-R ^{***}		3LS3413-R ^{***}		3LT3413-R ^{***}		(14)
6000	240	17	37	3LP6217-R ^{***}	\$535	3LF6217-R ^{***}	\$609	3LS6217-R ^{***}	\$672	3LT6217-R ^{***}	\$1,024	33
	480	(430)	(940)	3LP6417-R ^{***}		3LF6417-R ^{***}		3LS6417-R ^{***}		3LT6417-R ^{***}		(15)
9000	240	22	37	3LP9222-R ^{***}	\$597	3LF9222-R ^{***}	\$666	3LS9222-R ^{***}	\$801	3LT9222-R ^{***}	\$1,173	36
	480	(560)	(940)	3LP9422-R ^{***}		3LF9422-R ^{***}		3LS9422-R ^{***}		3LT9422-R ^{***}		(16.5)
12000	240	26	37	3LP12226-R ^{***}	\$655	3LF12226-R ^{***}	\$746	3LS12226-R ^{***}	\$863	3LT12226-R ^{***}	\$1,259	39
	480	(660)	(940)	3LP12426-R ^{***}		3LF12426-R ^{***}		3LS12426-R ^{***}		3LT12426-R ^{***}		(18)
15000	240	31	37	3LP15231-R ^{***}	\$734	3LF15231-R ^{***}	\$826	3LS15231-R ^{***}	\$944	3LT15231-R ^{***}	\$1,493	42
	480	(790)	(940)	3LP15431-R ^{***}		3LF15431-R ^{***}		3LS15431-R ^{***}		3LT15431-R ^{***}		(19)
18000	240	36	50	3LP18236-R ^{***}	\$800	3LF18236-R ^{***}	\$916	3LS18236-R ^{***}	\$1,013	3LT18236-R ^{***}	\$1,702	45
	480	(915)	(1270)	3LP18436-R ^{***}		3LF18436-R ^{***}		3LS18436-R ^{***}		3LT18436-R ^{***}		(20.5)
24000	240	44	50	3LP24244-R ^{***}	\$939	3LF24244-R ^{***}	\$1,083	3LS24244-R ^{***}	\$1,167	3LT24244-R ^{***}	\$1,962	54
	480	(1120)	(1270)	3LP24444-R ^{***}		3LF24444-R ^{***}		3LS24444-R ^{***}		3LT24444-R ^{***}		(24.5)
27000	240	50	50	3LP27450-R ^{***}	\$1,055	3LF27450-R ^{***}	\$1,189	3LS27450-R ^{***}	\$1,302	3LT27450-R ^{***}	\$2,150	60
	480	(1270)	(1270)									(27.5)
30000	240	55	50	3LP30455-R ^{***}	\$1,213	3LF30455-R ^{***}	\$1,412	3LS30455-R ^{***}	\$1,671	3LT30455-R ^{***}	\$2,522	66
	480	(1400)	(1270)									(30)
36000	240	64	50	3LP36464-R ^{***}	\$1,345	3LF36464-R ^{***}	\$1,548	3LS36464-R ^{***}	\$1,923	3LT36464-R ^{***}	\$3,058	75
	480	(1625)	(1270)									(34)

††† Single phase available as option, add "-1" before riser designator, no extra charge.

**Longer vertical lengths available - add \$4 per inch (2.54 cm) for steel and stainless steel, or \$6 per inch (2.54 cm) for titanium over standard length.

DL SERIES, DERATED METAL L-SHAPED HEATERS (Single Phase Standard)[†] (pg A26)

WATTS	VOLTS (See Pg. 2)	HORIZ. IN./ (mm)	STD. VERT. IN./ (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS. / (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
500	120	13	15	DLP.5113-R ^{**}	\$246	DLF.5113-R ^{**}	\$279	DLS.5113-R ^{**}	\$295	DLT.5113-R ^{**}	\$396	10
	240	(330)	(380)	DLP.5213-R ^{**}		DLF.5213-R ^{**}		DLS.5213-R ^{**}		DLT.5213-R ^{**}		(4.5)
1000	120	17	19	DLP1117-R ^{**}	\$261	DLF1117-R ^{**}	\$302	DLS1117-R ^{**}	\$322	DLT1117-R ^{**}	\$462	11
	240	(430)	(485)	DLP1217-R ^{**}		DLF1217-R ^{**}		DLS1217-R ^{**}		DLT1217-R ^{**}		(5)
1500	120	22	25	DLP1.5122-R ^{**}	\$296	DLF1.5122-R ^{**}	\$334	DLS1.5122-R ^{**}	\$365	DLT1.5122-R ^{**}	\$526	12
	240	(560)	(635)	DLP1.5222-R ^{**}		DLF1.5222-R ^{**}		DLS1.5222-R ^{**}		DLT1.5222-R ^{**}		(5.5)
2000	240	26	25	DLP2226-R ^{**}	\$318	DLF2226-R ^{**}	\$366	DLS2226-R ^{**}	\$391	DLT2226-R ^{**}	\$572	13
	480	(660)	(635)	DLP2426-R ^{**}		DLF2426-R ^{**}		DLS2426-R ^{**}		DLT2426-R ^{**}		(6)
2500	240	31	37	DLP2.5231-R ^{**}	\$357	DLF2.5231-R ^{**}	\$407	DLS2.5231-R ^{**}	\$428	DLT2.5231-R ^{**}	\$671	14
	480	(790)	(940)	DLP2.5431-R ^{**}		DLF2.5431-R ^{**}		DLS2.5431-R ^{**}		DLT2.5431-R ^{**}		(6.5)
3000	240	36	50	DLP3236-R ^{**}	\$392	DLF3236-R ^{**}	\$445	DLS3236-R ^{**}	\$470	DLT3236-R ^{**}	\$766	15
	480	(915)	(1270)	DLP3436-R ^{**}		DLF3436-R ^{**}		DLS3436-R ^{**}		DLT3436-R ^{**}		(7)
4000	240	44	50	DLP4244-R ^{**}	\$424	DLF4244-R ^{**}	\$472	DLS4244-R ^{**}	\$534	DLT4244-R ^{**}	\$851	18
	480	(1120)	(1270)	DLP4444-R ^{**}		DLF4444-R ^{**}		DLS4444-R ^{**}		DLT4444-R ^{**}		(8)
4500	240	50	50	DLP4.5250-R ^{**}	\$447	DLF4.5250-R ^{**}	\$492	DLS4.5250-R ^{**}	\$564	DLT4.5250-R ^{**}	\$904	20
	480	(1270)	(1270)	DLP4.5450-R ^{**}		DLF4.5450-R ^{**}		DLS4.5450-R ^{**}		DLT4.5450-R ^{**}		(9)
5000	240	55	50	DLP5255-R ^{**}	\$489	DLF5255-R ^{**}	\$556	DLS5255-R ^{**}	\$629	DLT5255-R ^{**}	\$963	22
	480	(1400)	(1270)	DLP5455-R ^{**}		DLF5455-R ^{**}		DLS5455-R ^{**}		DLT5455-R ^{**}		(10)
6000	240	64	50	DLP6264-R ^{**}	\$544	DLF6264-R ^{**}	\$607	DLS6264-R ^{**}	\$678	DLT6264-R ^{**}	\$1,026	25
	480	(1625)	(1270)	DLP6464-R ^{**}		DLF6464-R ^{**}		DLS6464-R ^{**}		DLT6464-R ^{**}		(11.5)

[†] Three phase available as option for 10% additional - add "-3" before thermal designator.

D3L SERIES, DERATED TRIPLE METAL L-SHAPED HEATERS (Three Phase Standard)[†] (pg A27)

WATTS	VOLTS (See Pg. 2)	HORIZ. IN./ (mm)	STD. VERT. IN./ (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS. / (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
1500	120	13	15	D3LP1.5113-R ^{**}	\$445	D3LF1.5113-R ^{**}	\$516	D3LS1.5113-R ^{**}	\$558	D3LT1.5113-R ^{**}	\$786	30
	240	(330)	(380)	D3LP1.5213-R ^{**}		D3LF1.5213-R ^{**}		D3LS1.5213-R ^{**}		D3LT1.5213-R ^{**}		(14)
3000	240	17	37	D3LP3217-R ^{**}	\$535	D3LF3217-R ^{**}	\$609	D3LS3217-R ^{**}	\$672	D3LT3217-R ^{**}	\$1,024	33
	480	(430)	(940)	D3LP3417-R ^{**}		D3LF3417-R ^{**}		D3LS3417-R ^{**}		D3LT3417-R ^{**}		(15)
4500	240	22	37	D3LP4.5222-R ^{**}	\$597	D3LF4.5222-R ^{**}	\$666	D3LS4.5222-R ^{**}	\$801	D3LT4.5222-R ^{**}	\$1,173	36
	480	(560)	(940)	D3LP4.5422-R ^{**}		D3LF4.5422-R ^{**}		D3LS4.5422-R ^{**}		D3LT4.5422-R ^{**}		(16.5)
6000	240	26	37	D3LP6226-R ^{**}	\$655	D3LF6226-R ^{**}	\$746	D3LS6226-R ^{**}	\$863	D3LT6226-R ^{**}	\$1,259	39
	480	(660)	(940)	D3LP6426-R ^{**}		D3LF6426-R ^{**}		D3LS6426-R ^{**}		D3LT6426-R ^{**}		(18)
7500	240	31	37	D3LP7.5231-R ^{**}	\$734	D3LF7.5231-R ^{**}	\$826	D3LS7.5231-R ^{**}	\$944	D3LT7.5231-R ^{**}	\$1,493	42
	480	(790)	(940)	D3LP7.5431-R ^{**}		D3LF7.5431-R ^{**}		D3LS7.5431-R ^{**}		D3LT7.5431-R ^{**}		(19)
9000	240	36	50	D3LP9236-R ^{**}	\$800	D3LF9236-R ^{**}	\$916	D3LS9236-R ^{**}	\$1,013	D3LT9236-R ^{**}	\$1,702	45
	480	(915)	(1270)	D3LP9436-R ^{**}		D3LF9436-R ^{**}		D3LS9436-R ^{**}		D3LT9436-R ^{**}		(20.5)
12000	240	44	50	D3LP12244-R ^{**}	\$939	D3LF12244-R ^{**}	\$1,083	D3LS12244-R ^{**}	\$1,167	D3LT12244-R ^{**}	\$1,962	54
	480	(1120)	(1270)	D3LP12444-R ^{**}		D3LF12444-R ^{**}		D3LS12444-R ^{**}		D3LT12444-R ^{**}		(24.5)
13500	240	50	50	D3LP13.5250-R ^{**}	\$1,055	D3LF13.5250-R ^{**}	\$1,189	D3LS13.5250-R ^{**}	\$1,302	D3LT13.5250-R ^{**}	\$2,150	60
	480	(1270)	(1270)	D3LP13.5450-R ^{**}		D3LF13.5450-R ^{**}		D3LS13.5450-R ^{**}		D3LT13.5450-R ^{**}		(27.5)
15000	240	55	50	D3LP15255-R ^{**}	\$1,213	D3LF15255-R ^{**}	\$1,412	D3LS15255-R ^{**}	\$1,671	D3LT15255-R ^{**}	\$2,522	66
	480	(1400)	(1270)	D3LP15455-R ^{**}		D3LF15455-R ^{**}		D3LS15455-R ^{**}		D3LT15455-R ^{**}		(30)
18000	240	64	50	D3LP18264-R ^{**}	\$1,345	D3LF18264-R ^{**}	\$1,548	D3LS18264-R ^{**}	\$1,923	D3LT18264-R ^{**}	\$3,058	75
	480	(1625)	(1270)	D3LP18464-R ^{**}		D3LF18464-R ^{**}		D3LS18464-R ^{**}		D3LT18464-R ^{**}		(34)

[†] Single phase available as option, add "-1" before thermal designator.

3LV SERIES, VERTICAL STACK TRIPLE METAL L-SHAPED HEATERS (Three Phase Standard)[†] (pg A28)

WATTS	VOLTS (See Pg. 2)	HORIZ. IN./ (mm)	STD. VERT. IN./ (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS. / (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
3000	240	13	19	3LVP3213-R ^{**}	\$445	3LVF3213-R ^{**}	\$516	3LVS3213-R ^{**}	\$558	3LVT3213-R ^{**}	\$786	30
	480	(330)	(485)	3LVP3413-R ^{**}		3LVF3413-R ^{**}		3LVS3413-R ^{**}		3LVT3413-R ^{**}		(14)
6000	240	17	37	3LVP6217-R ^{**}	\$535	3LVF6217-R ^{**}	\$609	3LVS6217-R ^{**}	\$672	3LVT6217-R ^{**}	\$1,024	33
	480	(430)	(940)	3LVP6417-R ^{**}		3LVF6417-R ^{**}		3LVS6417-R ^{**}		3LVT6417-R ^{**}		(15)
9000	240	22	37	3LVP9222-R ^{**}	\$597	3LVF9222-R ^{**}	\$666	3LVS9222-R ^{**}	\$801	3LVT9222-R ^{**}	\$1,173	36
	480	(560)	(940)	3LVP9422-R ^{**}		3LVF9422-R ^{**}		3LVS9422-R ^{**}		3LVT9422-R ^{**}		(16.5)
12000	240	26	37	3LVP12226-R ^{**}	\$655	3LVF12226-R ^{**}	\$746	3LVS12226-R ^{**}	\$863	3LVT12226-R ^{**}	\$1,259	39
	480	(660)	(940)	3LVP12426-R ^{**}		3LVF12426-R ^{**}		3LVS12426-R ^{**}		3LVT12426-R ^{**}		(18)
15000	240	31	37	3LVP15231-R ^{**}	\$734	3LVF15231-R ^{**}	\$826	3LVS15231-R ^{**}	\$944	3LVT15231-R ^{**}	\$1,493	42
	480	(790)	(940)	3LVP15431-R ^{**}		3LVF15431-R ^{**}		3LVS15431-R ^{**}		3LVT15431-R ^{**}		(19)
18000	240	36	50	3LVP18236-R ^{**}	\$800	3LVF18236-R ^{**}	\$916	3LVS18236-R ^{**}	\$1,013	3LVT18236-R ^{**}	\$1,702	45
	480	(915)	(1270)	3LVP18436-R ^{**}		3LVF18436-R ^{**}		3LVS18436-R ^{**}		3LVT18436-R ^{**}		(20.5)
24000	240	44	50	3LVP24244-R ^{**}	\$939	3LVF24244-R ^{**}	\$1,083	3LVS24244-R ^{**}	\$1,167	3LVT24244-R ^{**}	\$1,962	54
	480	(1120)	(1270)	3LVP24444-R ^{**}		3LVF24444-R ^{**}		3LVS24444-R ^{**}		3LVT24444-R ^{**}		(24.5)
27000	480	50	50	3LVP27450-R ^{**}	\$1,055	3LVF27450-R ^{**}	\$1,189	3LVS27450-R ^{**}	\$1,302	3LVT27450-R ^{**}	\$2,150	60
		(1270)	(1270)									(27.5)
30000	480	55	50	3LVP30455-R ^{**}	\$1,213	3LVF30455-R ^{**}	\$1,412	3LVS30455-R ^{**}	\$1,671	3LVT30455-R ^{**}	\$2,448	66
		(1400)	(1270)									(30)
36000	480	64	50	3LVP36464-R ^{**}	\$1,345	3LVF36464-R ^{**}	\$1,548	3LVS36464-R ^{**}	\$1,923	3LVT36464-R ^{**}	\$3,058	75
		(1625)	(1270)									(34)

[†] Single phase available as option, add "-1" before thermal designator.

Longer rigid riser vertical lengths available - add \$4 per inch (2.54 cm) for stainless steel or \$6 per inch (2.54 cm) for titanium over standard length. Flexible fluoropolymer riser available on all metal L-shaped heaters (P2 system only). 48" (1.3m) standard, add "FR" to part number - price adder of \$170. Longer lengths available - add \$6 per inch (2.54 cm).

* Specify vertical length by adding height in inches after "R". ** Specify thermal overload protection desired, see page 2.

DEEP TANK METAL HEATERS (Single Phase Standard)[†] (pg A30)

WATTS	VOLTS (see Pg. 2)	HOT ZONE IN./ (mm)	OVERALL LGTH IN./ (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS./ (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
12000	480	58 (1475)	96 (2440)	P12496-**	\$542	F12496-**	\$654	S12496-**	\$728	T12496-**	\$1,209	37 (17)
12000	480	58 (1475)	120 (3050)	P124120-**	\$656	F124120-**	\$775	S124120-**	\$877	T124120-**	\$1,475	45 (20)
12000	480	58 (1475)	144 (3655)	P124144-**	\$764	F124144-**	\$893	S124144-**	\$1,022	T124144-**	\$1,710	53 (24)
15000	480	76 (1930)	96 (2440)	P15496-**	\$581	F15496-**	\$693	S15496-**	\$774	T15496-**	\$1,250	37 (17)
15000	480	76 (1930)	120 (3050)	P154120-**	\$695	F154120-**	\$816	S154120-**	\$920	T154120-**	\$1,516	45 (20)
15000	480	76 (1930)	144 (3655)	P154144-**	\$806	F154144-**	\$935	S154144-**	\$1,062	T154144-**	\$1,781	53 (24)
18000	480	82 (2085)	96 (2440)	P18496-**	\$627	F18496-**	\$734	S18496-**	\$814	T18496-**	\$1,296	37 (17)
18000	480	82 (2085)	120 (3050)	P184120-**	\$739	F184120-**	\$859	S184120-**	\$960	T184120-**	\$1,558	45 (20)
18000	480	82 (2085)	144 (3655)	P184144-**	\$848	F184144-**	\$975	S184144-**	\$1,106	T184144-**	\$1,821	53 (24)

[†] Three phase 240 and 480 volt available as option for 10% additional - add "-3" before thermal designator.

3V SERIES, TRIPLE METAL DEEP TANK HEATERS (Three Phase Standard)[†] (pg A31)

WATTS	VOLTS (see Pg. 2)	HOT ZONE IN./ (mm)	PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS./ (kg)
			MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
18000	240	30 (760)	3VP18236-**	\$896	3VF18236-**	\$996	3VS18236-**	\$1,110	3VT18236-**	\$1,716	70
	480		3VP18436-**		3VF18436-**		3VS18436-**		3VT18436-**		(32)
24000	240	37 (940)	3VP24244-**	\$1,033	3VF24244-**	\$1,180	3VS24244-**	\$1,262	3VT24244-**	\$1,983	75
	480		3VP24444-**		3VF24444-**		3VS24444-**		3VT24444-**		(34)
27000	480	44 (1120)	3VP27450-**	\$1,144	3VF27450-**	\$1,286	3VS27450-**	\$1,401	3VT27450-**	\$2,175	80 (36)
30000	480	49 (1245)	3VP30455-**	\$1,307	3VF30455-**	\$1,509	3VS30455-**	\$1,769	3VT30455-**	\$2,581	87 (40)
36000	480	58 (1475)	3VP36464-**	\$1,441	3VF36464-**	\$1,647	3VS36464-**	\$2,027	3VT36464-**	\$3,095	100 (46)
45000	480	66 (1675)	3VP45472-**	\$1,713	3VF45472-**	\$1,982	3VS45472-**	\$2,485	3VT45472-**	\$3,751	120 (55)
48000	480	70 (1780)	3VP48476-**	\$1,805	3VF48476-**	\$2,092	3VS48476-**	\$2,651	3VT48476-**	\$3,983	125 (57)
54000	480	78 (1980)	3VP54484-**	\$1,987	3VF54484-**	\$2,317	3VS54484-**	\$2,940	3VT54484-**	\$4,437	140 (64)

P2 thermal protection standard. Add \$5 per every vertical riser inch (2.54 cm) for steel, 304 stainless steel and 316 stainless steel heaters. Add \$10 per inch (2.54 cm) for titanium models.

[†] Single phase available as option, add "-1" before thermal designator.

TUBULAR HEATERS

3HS SERIES, 3 ELEMENT 316 STAINLESS STEEL HEATERS (Three Phase Standard) (pg A17)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
3000	240	11 (280)	17 (430)	3HS3217-**	\$347	9
	480			3HS3417-**		(4)
4500	240	16 (405)	23 (585)	3HS4.5223-**	\$399	10
	480			3HS4.5423-**		(4.5)
7500	240	21 (535)	29 (735)	3HS7.5229-**	\$559	12
	480			3HS7.5429-**		(5.5)
10500	240	26 (660)	34 (865)	3HS10.5234-**	\$727	14
	480			3HS10.5434-**		(6.5)

6HS SERIES, 6 ELEMENT 316 STAINLESS STEEL HEATERS (Three Phase Standard) (pg A18)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
6000	240	10 (255)	17 (430)	6HS6217-**	\$570	12
	480			6HS6417-**		(5.5)
9000	240	16 (405)	23 (585)	6HS9223-**	\$641	13
	480			6HS9423-**		(6)
15000	240	20 (510)	29 (735)	6HS15229-**	\$845	16
	480			6HS15429-**		(7.5)
21000	240	25 (635)	34 (865)	6HS21234-**	\$997	18
	480			6HS21434-**		(8.5)

* Requires welded metal junction box and permanent P2 thermal overload protection. "M" in model number = metal head.

** Specify thermal overload protection desired, see page 2.

Shaded portion of charts indicate item cannot ship UPS.

9HS SERIES, 9 ELEMENT 316 STAINLESS STEEL HEATERS (Three Phase Standard) (pg A19)

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
9000	240	10 (255)	17 (430)	9HS9217-**	\$660	16
	480			9HS9417-**		(7.5)
13500	240	16 (405)	23 (585)	9HS13.5223-**	\$753	19
	480			9HS13.5423-**		(9)
22500	240	20 (510)	29 (735)	9HS22.5229-**	\$1,000	23
	480			9HS22.5429-**		(10.5)
31500	240*	25 (635)	34 (865)	9HS31.5234-M-**	\$1,530	25
	480			9HS31.5434-**		(11.5)
31500	480	25 (635)	34 (865)	9HS31.5434-**	\$1,359	25 (11.5)

TYTAN™ WATER HEATERS (pg A35)						
WATTS	VOLTS (See Pg. 2)	TITANIUM MODEL NUMBER	TITANIUM PRICE	316 STAINLESS STEEL MODEL NUMBER	316 STAINLESS STEEL PRICE	SHIP WT. LBS./ (kg)
12000	240	TY-012-240-3	\$8,805	TY-012-240-3-S	\$8,352	300
	480	TY-012-480-3		TY-012-480-3-S		(136)
18000	240	TY-018-240-3	\$9,130	TY-018-240-3-S	\$8,676	300
	480	TY-018-480-3		TY-018-480-3-S		(136)
24000	240	TY-024-240-3	\$9,387	TY-024-240-3-S	\$8,933	300
	480	TY-024-480-3		TY-024-480-3-S		(136)
36000	240	TY-036-240-3	\$11,620	TY-036-240-3-S	\$10,713	338
	480	TY-036-480-3		TY-036-480-3-S		(153)
48000	240	TY-048-240-3	\$13,857	TY-048-240-3-S	\$12,950	338
	480	TY-048-480-3		TY-048-480-3-S		(153)
72000	240	TY-072-240-3	\$21,081	TY-072-240-3-S	\$19,720	350
	480	TY-072-480-3		TY-072-480-3-S		(159)
96000	240	TY-096-240-3	\$20,736	TY-096-240-3-S	\$18,922	570
	480	TY-096-480-3		TY-096-480-3-S		(259)
120000	240	TY-120-240-3	\$21,995	TY-120-240-3-S	\$19,727	580
	480	TY-120-480-3		TY-120-480-3-S		(263)
144000	240	TY-144-240-3	\$26,000	TY-144-240-3-S	\$23,279	590
	480	TY-144-480-3		TY-144-480-3-S		(268)

Custom sizes and voltages are available, consult factory. All sizes cULus listed. CE and Semi S2/S3 compliance available, consult factory.

DAS SERIES, OVER-THE-SIDE 316 STAINLESS STEEL PHOSPHATE HEATERS (pg A32)						
WATTS	VOLTS	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS./ (kg)
1000	120	7	11	DAS1111-P4	\$569	17
	240	(180)	(280)	DAS1211-P4		(8)
2000	240	12	17	DAS2217-P4	\$598	20
	480	(305)	(430)	DAS2417-P4		(9)
3000	240	18	23	DAS3223-P4	\$605	24
	480	(460)	(585)	DAS3423-P4		(11)
3500	240	21	29	DAS3.5229-P4	\$635	30
	480	(535)	(735)	DAS3.5429-P4		(14)
4000	240	28	35	DAS4235-P4	\$686	36
	480	(710)	(890)	DAS4435-P4		(16)
5000	240	33	41	DAS5241-P4	\$747	42
	480	(840)	(1040)	DAS5441-P4		(19)
6000	240	39	47	DAS6247-P4	\$844	48
	480	(990)	(1320)	DAS6447-P4		(22)
8000	240	49	59	DAS8259-P4	\$1,063	58
	480	(1245)	(1500)	DAS8459-P4		(27)
10000	240	62	71	DAS10271-P4	\$1,156	64
	480	(1575)	(1900)	DAS10471-P4		(30)

P6 reset option available, consult factory. Single phase standard. Three phase available as option, add "-3" before thermal protection designator.

B SERIES, SMALL TANK METAL HEATERS (1-1/4" Dia.) (pg A33)										
WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS./ (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
500	120	5	10	FB.5110-**	\$149	SB.5110-**	\$163	TB.5110-**	\$205	5
	240	(130)	(255)	FB.5210-**		SB.5210-**		TB.5210-**		(2)
1000	120	8	14	FB1114-**	\$152	SB1114-**	\$165	TB1114-**	\$216	6
	240	(205)	(355)	FB1214-**		SB1214-**		TB1214-**		(2.5)
1500	120	11	17	FB1.5117-**	\$166	SB1.5117-**	\$182	TB1.5117-**	\$249	8
	240	(280)	(430)	FB1.5217-**		SB1.5217-**		TB1.5217-**		(3)
2000	240	14	23	FB2223-**	\$194	SB2223-**	\$212	TB2223-**	\$285	9
	480	(355)	(585)							(3.5)

Single phase only. Plug-in option with 10 ft. (3m) flexible cord available on 120 VAC models - add \$75 to control price and add \$35 to heater, consult factory.

V SERIES, VARIPOWER HEATERS (1/2" Dia.) (pg A34)										
WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	316 STAINLESS		TITANIUM		FLUOROPOLYMER		SHIP WT. LBS./ (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
100	120	4	7	VS.1107	\$137	VT.1107	\$157	VX.1107	\$171	.5
	240	(100)	(180)	VS.1207		VT.1207		VX.1207		(.25)
300	120	6	11	VS.3111	\$430	VT.3111	\$450	VX.3111	\$456	.5
	240	(155)	(280)	VS.3211		VT.3211		VX.3211		(.25)
500	120	6	11	VS.5111	\$602	VT.5111	\$630	VX.5111	\$636	.5
	240	(155)	(280)	VS.5211		VT.5211		VX.5211		(.25)
1000	120	6	11	VS1111	\$901	VT1111	\$959	VX1111	\$979	.5
	240	(155)	(280)	VS1211		VT1211		VX1211		(.25)

Single phase only. 4' (1.2 m) cord and plug on 100 watt, 120V models and 3' (.9 m) conduit on 300-1000 watt models.

** Specify thermal overload protection desired, see page 2.

T SERIES, 2" TUBULAR SCREW PLUG HEATERS (Single Phase Standard)[†] (pg A36)										
WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	LENGTH IN. / (mm)	304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS./ (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
1000	120	2	10 (255)	FT1110	\$290	ST1110	\$313	TT1110	\$836	11
	240			FT1210		ST1210		TT1210		(5)
2000	120	2	14 (355)	FT2114	\$313	ST2114	\$350	TT2114	\$876	14
	240			FT2214		ST2214		TT2214		(6.5)
	480			FT2414		ST2414		TT2414		
3000	240	2	19 (480)	FT3219	\$335	ST3219	\$385	TT3219	\$928	16
	480			FT3419		ST3419		TT3419		(7.5)
4000	240	2	23 (585)	FT4223	\$356	ST4223	\$411	TT4223	\$978	20
	480			FT4423		ST4423		TT4423		(9)
6000	240	2	33 (840)	FT6233	\$411	ST6233	\$476	TT6233	\$1,081	26
	480			FT6433		ST6433		TT6433		(12)
8000	240	2	40 (1015)	FT8240	\$467	ST8240	\$549	TT8240	\$1,202	29
	480			FT8440		ST8440		TT8440		(13.5)
9000	240	2	47 (1120)	FT9247	\$511	ST9247	\$566	TT9247	\$1,328	32
	480			FT9447		ST9447		TT9447		(14.5)
12000	480	2	61 (1550)	FT12461	\$569	ST12461	\$604	TT12461	\$1,562	37 (17)

[†] Three phase available as option for 10% additional - add "-3" to end of model number.

2T SERIES, 2" 316 STAINLESS SCREW PLUG HEATERS^{††} (pg A37)							
WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	NUMBER OF ELEMENTS	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
2000	240	2	2	8	2T2208	\$468	5
	480			2T2408	(2.5)		
3000	240	2	2	12	2T3212	\$483	6
	480			2T3412	(3)		
4000	240	2	2	18	2T4218	\$517	7
	480			2T4418	(3.5)		
6000	240	2	2	25	2T6225	\$556	8
	480			2T6425	(4)		
8000	240	2	2	32	2T8232	\$585	10
	480			2T8432	(4.5)		
10000	240	2	2	40	2T10240	\$697	10
	480			2T10440	(4.5)		
12000	240	2	2	48	2T12448	\$737	12
	480				(5.5)		
15000	240	2	2	54	2T15454	\$762	15
	480				(7)		

^{††} Single phase standard, three element three phase available as option - consult factory.

T2T SERIES, 2" TITANIUM SCREW PLUG HEATERS^{†††} (pg A37)						
WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
2000	240	2	8 (205)	T2T2208	\$1,139	4
	480			T2T2408		(2)
4000	240	2	18 (460)	T2T4218	\$1,244	6
	480			T2T4418		(3)
6000	240	2	25 (635)	T2T6225	\$1,412	7
	480			T2T6425		(3.5)
8000	240	2	32 (815)	T2T8232	\$1,543	8
	480			T2T8432		(4)
12000	240	2	48 (1220)	T2T12448	\$1,686	10
	480					(4.5)

^{†††} Single phase standard. Three element three phase available as option - consult factory.

5T SERIES, 2-1/2" 316 STAINLESS SCREW PLUG HEATERS^{†††} (pg A38)							
WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	NUMBER OF ELEMENTS	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
4500	240	2½	3	12	5T4.5212	\$614	7
	480			5T4.5412	(3.5)		
6000	240	2½	3	18	5T6218	\$673	8
	480			5T6418	(4)		
9000	240	2½	3	25	5T9225	\$731	9
	480			5T9425	(4.5)		
12000	240	2½	3	32	5T12232	\$814	10
	480			5T12432	(4.5)		
15000	240	2½	3	40	5T15240	\$930	12
	480			5T15440	(5.5)		
18000	240	2½	3	48	5T18248	\$972	15
	480			5T18448	(7)		

^{†††} Three phase standard. Single phase available as option, add "-1" to end of model number.

T5T SERIES, 2½" TITANIUM SCREW PLUG HEATERS^{††††} (pg A38)						
WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
3000	240	2½	8 (205)	T5T3208	\$1,303	5
	480			T5T3408		(2.5)
6000	240	2½	18 (460)	T5T6218	\$1,430	6
	480			T5T6418		(3)
9000	240	2½	25 (635)	T5T9225	\$1,618	7
	480			T5T9425		(3.5)
12000	240	2½	32 (815)	T5T12232	\$1,798	8
	480			T5T12432		(4)
18000	240	2½	48 (1220)	T5T18248	\$2,024	13
	480			T5T18448		(6)

^{††††} Three phase standard. Single phase available as option, add "-1" to end of model number.

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V*T SERIES, 1/2" VARIPOWER SCREW PLUG HEATERS (pg A34)										
WATTS	VOLTS (See Pg. 2)	(NPT) IN.	LENGTH IN. / (mm)	316 STAINLESS		TITANIUM		FLUOROPOLYMER		SHIP WT. LBS./ (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
100	120	1/2	7 (180)	VST.1107	\$182	VTT.1107	\$250	VXT.1107	\$201	1
	240			VST.1207		VTT.1207		VXT.1207		(.5)
200	120	1/2	10 (255)	VST.2110	\$258	VTT.2110	\$332	VXT.2110	\$288	1
	240			VST.2210		VTT.2210		VXT.2210		(.5)

Single phase only.

TB SERIES, 1/4" SMALL TANK SCREW PLUG HEATERS (pg A39)										
WATTS	VOLTS (See Pg. 2)	(NPT) IN.	LENGTH IN. / (mm)	304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT. LBS./ (kg)
				MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	
500	120	1/4	8 (205)	FTB.5108	\$236	STB.5108	\$254	TTB.5108	\$470	8
	240			FTB.5208		STB.5208		TTB.5208		(4)
1000	120	1/4	10 (255)	FTB1110	\$239	STB1110	\$260	TTB1110	\$472	10
	240			FTB1210		STB1210		TTB1210		(4.5)
1500	120	1/4	14 (355)	FTB1.5114	\$254	STB1.5114	\$276	TTB1.5114	\$508	14
	240			FTB1.5214		STB1.5214		TTB1.5214		(6.5)
2000	120	1/4	17 (430)	FTB2117	\$269	STB2117	\$295	TTB2117	\$545	17
	240			FTB2217		STB2217		TTB2217		(8)

Single phase only.

HXT SERIES, FLUOROPOLYMER (PTFE) SCREW PLUG HEATERS† (pg A40)						
WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
1000	120	2 1/2	9 (230)	HXT1109	\$1,074	9
	240			HXT1209		(4)
2000	240	2 1/2	14 (355)	HXT2214	\$1,170	12
	480			HXT2414		(5.5)
3000	240	2 1/2	19 (485)	HXT3219	\$1,344	15
	480			HXT3419		(7)
4000	240	2 1/2	26 (660)	HXT4226	\$1,490	17
	480			HXT4426		(8)
5000	240	2 1/2	30 (762)	HXT5230	\$1,673	20
	480			HXT5430		(9)
6000	240	2 1/2	34 (865)	HXT6234	\$1,842	23
	480			HXT6434		(10.5)

† Single phase only.

3FLX SERIES, 3" 150# FLANGED FLUOROPOLYMER (PTFE) HEATERS (Single Phase Only) (pg A42)						
WATTS	VOLTS (See Pg. 2)	NUMBER OF ELEMENTS	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
1000	120	1	11 (280)	3FLX1111-*	\$1,772	20
	240			3FLX1211-*		(9)
2000	240	1	16 (405)	3FLX2216-*	\$1,849	23
	480			3FLX2416-*		(11)
3000	240	1	21 (535)	3FLX3221-*	\$1,918	26
	480			3FLX3421-*		(12)
4000	240	1	28 (710)	3FLX4228-*	\$1,992	29
	480			3FLX4428-*		(13)
5000	240	1	32 (815)	3FLX5232-*	\$2,061	32
	480			3FLX5432-*		(15)
6000	240	1	35 (890)	3FLX6235-*	\$2,157	35
	480			3FLX6435-*		(16)

NOTE: Heater rated for 50 PSI.

6FLX SERIES, 6" 150# FLANGED FLUOROPOLYMER (PTFE) HEATERS (Three Phase Standard)† (pg A42)						
WATTS	VOLTS (See Pg. 2)	NUMBER OF ELEMENTS	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
3000	240	3	11 (280)	6FLX3211-*	\$4,455	42
	480			6FLX3411-*		(19)
6000	240	3	16 (405)	6FLX6216-*	\$4,736	51
	480			6FLX6416-*		(23)
9000	240	3	21 (535)	6FLX9221-*	\$5,227	60
	480			6FLX9421-*		(27)
12000	240	3	28 (710)	6FLX12228-*	\$5,647	66
	480			6FLX12428-*		(30)
15000	240	3	32 (815)	6FLX15232-*	\$6,173	75
	480			6FLX15432-*		(34)
18000	240	3	35 (890)	6FLX18235-*	\$6,659	84
	480			6FLX18435-*		(38)

† Single phase available as option, add "-1" before thermal designator. NOTE: Heater rated for 50 PSI.

3" 150 LB. 316 STAINLESS FLANGE (3 ELEMENTS)					
WATTS	VOLTS (See Pg. 2)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
3000	240	9	3FLS3209-*	\$912	14
	480	(230)	3FLS3409-*		(6.5)
4500	240	13	3FLS4.5213-*	\$999	15
	480	(330)	3FLS4.5413-*		(7)
6000	240	19	3FLS6219-*	\$1,095	16
	480	(485)	3FLS6419-*		(7.5)
9000	240	26	3FLS9226-*	\$1,204	17
	480	(660)	3FLS9426-*		(8)
12000	240	33	3FLS12233-*	\$1,360	18
	480	(840)	3FLS12433-*		(8)
15000	240	41	3FLS15241-*	\$1,476	20
	480	(1040)	3FLS15441-*		(9)
18000	240	49	3FLS18249-*	\$1,626	21
	480	(1245)	3FLS18449-*		(10)

5" 150 LB. 316 STAINLESS FLANGE (6 ELEMENTS)					
WATTS	VOLTS (See Pg. 2)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
6000	240	9	5FLS6209-*	\$1,608	25
	480	(230)	5FLS6409-*		(11.5)
9000	240	13	5FLS9213-*	\$1,724	28
	480	(330)	5FLS9413-*		(13)
12000	240	19	5FLS12219-*	\$1,864	30
	480	(485)	5FLS12419-*		(14)
18000	240	26	5FLS18226-*	\$2,058	33
	480	(660)	5FLS18426-*		(15)
24000	240	33	5FLS24233-*	\$2,193	37
	480	(840)	5FLS24433-*		(17)
30000	240	41	5FLS30241-*	\$2,421	40
	480	(1040)	5FLS30441-*		(18)
36000	240	49	5FLS36249-*	\$2,617	43
	480	(1245)	5FLS36449-*		(19.5)

6" 150 LB. 316 STAINLESS FLANGE (12 ELEMENTS)					
WATTS	VOLTS (See Pg. 2)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
12000	240	9	6FLS12209-*	\$3,292	48
	480	(230)	6FLS12409-*		(22)
18000	240	13	6FLS18213-*	\$3,444	54
	480	(330)	6FLS18413-*		(24.5)
24000	240	19	6FLS24219-*	\$3,586	60
	480	(485)	6FLS24419-*		(27)
36000	240	26	6FLS36226-*	\$3,795	67
	480	(660)	6FLS36426-*		(30.5)
48000	240	33	6FLS48233-*	\$3,972	76
	480	(840)	6FLS48433-*		(34.5)
60000	240	41	6FLS60241-*	\$4,096	84
	480	(1040)	6FLS60441-*		(38)
72000	240	49	6FLS72249-*	\$4,371	111
	480	(1245)	6FLS72449-*		(50.5)

- 316 stainless steel standard.
- Three phase standard, single phase available as option.
- Optional materials:
TITANIUM = FLT
INCOLOY = FLI
STEEL = FLP
- P1 thermal overload protection standard.
- **ADDITIONAL OPTIONS INCLUDE:**
 - Resettable thermal protector (see page 2)
 - Integral thermostats
 - Thermowells
 - Explosion resistant enclosures
 - Custom sizes
 - Metric sizes

R SERIES, QUARTZ INFRARED HEATING ELEMENTS

22" OVERALL LENGTH - 18" HOT ZONE			
WATTS	VOLTS (See page 1)	MODEL NUMBERS	PRICE
500	120	R5221	\$44
	240	R5222	
750	120	R7221	
	240	R7222	
1000	120	R10221	
	240	R10222	
1250	120	R12221	
1500	120	R15221	

34" OVERALL LENGTH - 30" HOT ZONE			
WATTS	VOLTS (See page 1)	MODEL NUMBERS	PRICE
500	120	R5341	\$54
	240	R5342	
750	120	R7341	
	240	R7342	
1000	120	R10341	
	240	R10342	
1250	120	R12341	
	240	R12342	
1500	120	R15341	
	240	R15342	
2000	120	R20341	
	240	R20342	

46" OVERALL LENGTH - 42" HOT ZONE			
WATTS	VOLTS (See page 1)	MODEL NUMBERS	PRICE
500	120	R5461	\$65
	240	R5462	
750	120	R7461	
	240	R7462	
1000	120	R10461	
	240	R10462	
1250	120	R12461	
	240	R12462	
1500	120	R15461	
	240	R15462	
2000	120	R20461	
	240	R20462	
2500	240	R25462	
3000	240	R30462	

58" OVERALL LENGTH - 54" HOT ZONE			
WATTS	VOLTS (See page 1)	MODEL NUMBERS	PRICE
500	120	R5581	\$88
	240	R5582	
750	120	R7581	
	240	R7582	
1000	120	R10581	
	240	R10582	
1250	120	R12581	
	240	R12582	
1500	120	R15581	
	240	R15582	
2000	120	R20581	
	240	R20582	
2500	240	R25582	
3000	240	R30582	

70" OVERALL LENGTH - 66" HOT ZONE			
WATTS	VOLTS (See page 1)	MODEL NUMBERS	PRICE
1000	120	R10701	\$108
	240	R10702	
1250	120	R12701	
	240	R12702	
1500	120	R15701	
	240	R15702	
2000	120	R20701	
	240	R20702	
2500	240	R25702	
3000	240	R30702	
3500	240	R35702	
4000	240	R40702	

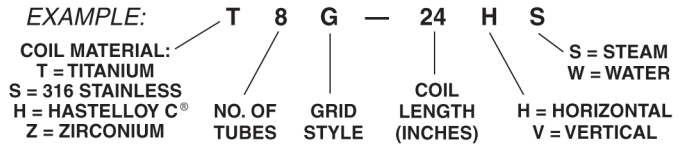
Pricing based on 12 piece minimum quantity. Consult factory for individual element pricing.

FL Series, Flanged Metal Heaters: page A41

R Series, Quartz Infrared Heating Elements: page A43

* Specify thermal overload protection desired (for flanged metal heaters), see page 2.

The following prices apply to horizontal as well as vertical style grid coils. Add (H) to end of model number for horizontal style. For a vertical style, add (V) to end of model number and reverse dimensions (i.e., width becomes coil length and length becomes coil width). Add (S) to end of model number for steam usage. Add (W) to end of model number for water usage.



12" WIDTH (8 tubes)					
SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
4.6	24 (610)	*8G-24**	\$327	\$614	12 (5.5)
5.6	30 (762)	*8G-30**	\$357	\$697	14 (6.5)
6.7	36 (915)	*8G-36**	\$384	\$761	16 (7.5)
8.8	48 (1219)	*8G-48**	\$444	\$890	18 (8)
10.9	60 (1524)	*8G-60**	\$503	\$1,021	23 (10.5)
13.7	72 (1829)	*8G-72**	\$573	\$1,150	28 (13)
15.1	84 (2134)	*8G-84**	\$624	\$1,278	31 (14)
17.2	96 (2438)	*8G-96**	\$712	\$1,406	34 (15.5)
19.2	108 (2743)	*8G-108**	\$770	\$1,536	38 (17)
21.3	120 (3048)	*8G-120**	\$827	\$1,664	41 (19)
23.4	132 (3353)	*8G-132**	\$878	\$1,793	46 (21)
25.5	144 (3658)	*8G-144**	\$946	\$1,922	49 (22)

18" WIDTH (12 tubes)					
SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
6.8	24 (610)	*12G-24**	\$456	\$865	15 (7)
8.4	30 (762)	*12G-30**	\$502	\$981	18 (8)
10.0	36 (915)	*12G-36**	\$544	\$1,078	21 (9.5)
13.2	48 (1219)	*12G-48**	\$634	\$1,272	26 (12)
16.3	60 (1524)	*12G-60**	\$721	\$1,465	32 (14.5)
19.5	72 (1829)	*12G-72**	\$812	\$1,659	37 (17)
22.6	84 (2134)	*12G-84**	\$898	\$1,852	42 (19)
25.7	96 (2438)	*12G-96**	\$1,032	\$2,044	47 (21)
28.9	108 (2743)	*12G-108**	\$1,124	\$2,238	53 (24)
32.0	120 (3048)	*12G-120**	\$1,208	\$2,432	58 (26)
35.2	132 (3353)	*12G-132**	\$1,300	\$2,625	64 (29)
38.3	144 (3658)	*12G-144**	\$1,385	\$2,818	69 (31)

24" WIDTH (16 tubes)					
SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
9.4	24 (610)	*16G-24**	\$590	\$1,146	19 (8.5)
11.5	30 (762)	*16G-30**	\$645	\$1,295	23 (10.5)
13.6	36 (915)	*16G-36**	\$706	\$1,422	28 (13)
17.8	48 (1219)	*16G-48**	\$809	\$1,681	33 (15)
22.0	60 (1524)	*16G-60**	\$939	\$1,939	40 (18)
26.1	72 (1829)	*16G-72**	\$1,059	\$2,197	47 (19)
30.3	84 (2134)	*16G-84**	\$1,176	\$2,454	54 (24.5)
34.5	96 (2438)	*16G-96**	\$1,357	\$2,712	61 (28)
38.7	108 (2743)	*16G-108**	\$1,486	\$2,969	69 (31)
42.9	120 (3048)	*16G-120**	\$1,594	\$3,229	76 (34.5)
47.1	132 (3353)	*16G-132**	\$1,710	\$3,486	82 (37)
51.3	144 (3658)	*16G-144**	\$1,829	\$3,743	88 (40)

30" WIDTH (20 tubes)					
SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
11.5	24 (610)	*20G-24**	\$717	\$1,465	22 (10)
14.2	30 (762)	*20G-30**	\$791	\$1,645	28 (13)
16.8	36 (915)	*20G-36**	\$865	\$1,806	33 (15)
22.0	48 (1219)	*20G-48**	\$1,014	\$2,128	40 (18)
27.2	60 (1524)	*20G-60**	\$1,159	\$2,451	48 (22)
32.5	72 (1829)	*20G-72**	\$1,305	\$2,773	58 (26)
37.7	84 (2134)	*20G-84**	\$1,451	\$3,095	68 (31)
42.9	96 (2438)	*20G-96**	\$1,678	\$3,417	75 (34)
48.2	108 (2743)	*20G-108**	\$1,828	\$3,739	83 (38)
53.4	120 (3048)	*20G-120**	\$1,972	\$4,062	92 (42)
58.6	132 (3353)	*20G-132**	\$2,118	\$4,385	100 (45.5)
63.9	144 (3658)	*20G-144**	\$2,267	\$4,707	109 (49.5)

36" WIDTH (24 tubes)					
SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
13.7	24 (610)	*24G-24**	\$849	\$1,725	28 (13)
16.8	30 (762)	*24G-30**	\$934	\$1,938	31 (14)
20.0	36 (915)	*24G-36**	\$1,025	\$2,132	38 (17)
26.3	48 (1219)	*24G-48**	\$1,200	\$2,518	48 (22)
32.5	60 (1524)	*24G-60**	\$1,377	\$2,905	57 (26)
38.8	72 (1829)	*24G-72**	\$1,552	\$3,291	68 (31)
45.1	84 (2134)	*24G-84**	\$1,727	\$3,678	79 (36)
51.4	96 (2438)	*24G-96**	\$2,001	\$4,066	89 (40.5)
57.7	108 (2743)	*24G-108**	\$2,172	\$4,453	99 (45)
64.0	120 (3048)	*24G-120**	\$2,355	\$4,837	109 (49.5)
70.3	132 (3353)	*24G-132**	\$2,531	\$5,226	119 (54)
76.6	144 (3658)	*24G-144**	\$2,704	\$5,612	129 (59)

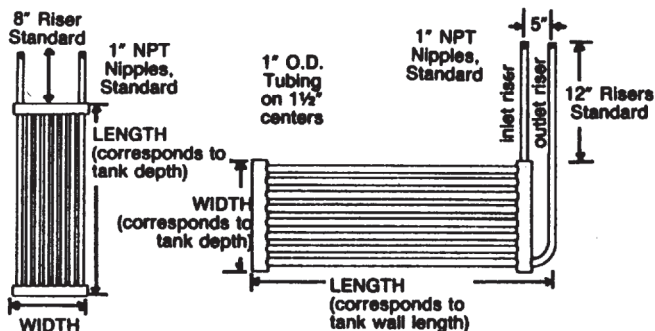
42" WIDTH (28 tubes)					
SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
15.8	24 (610)	*28G-24**	\$976	\$1,939	32 (14.5)
19.5	30 (762)	*28G-30**	\$1,080	\$2,184	38 (17)
23.2	36 (915)	*28G-36**	\$1,183	\$2,409	45 (20.5)
30.6	48 (1219)	*28G-48**	\$1,386	\$2,860	56 (25.5)
38.0	60 (1524)	*28G-60**	\$1,595	\$3,312	68 (31)
45.4	72 (1829)	*28G-72**	\$1,801	\$3,762	80 (36.5)
52.8	84 (2134)	*28G-84**	\$2,006	\$4,215	92 (42)
60.2	96 (2438)	*28G-96**	\$2,323	\$4,665	103 (47)
67.6	108 (2743)	*28G-108**	\$2,527	\$5,117	115 (52)
75.0	120 (3048)	*28G-120**	\$2,734	\$5,567	126 (57)
82.4	132 (3353)	*28G-132**	\$2,942	\$6,019	140 (64)
89.8	144 (3658)	*28G-144**	\$3,147	\$6,470	150 (68)

Consult factory for pricing on Hastelloy C®, Carpenter 20 and Zirconium. * See ordering information at top of the page.

G Series, Grid Coils*

VERTICAL STYLE

HORIZONTAL STYLE



UC Series, U Coils

Add "S" to end of Model Number for Stainless
 Add "T" to end of Model Number for Titanium
 Add "H" to end of Model Number for Hastelloy C®
 Add "Z" to end of Model Number for Zirconium

LENGTH IN. / (mm)	MODEL NUMBER	SQUARE FEET	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
18 (460)	UC-18	0.75	\$80	\$197	3 (1.5)
24 (610)	UC-24	1.00	\$89	\$231	4 (2)
30 (762)	UC-30	1.25	\$95	\$268	5 (2.5)
36 (915)	UC-36	1.50	\$103	\$301	6 (3)
42 (1065)	UC-42	1.75	\$111	\$338	7 (3)
48 (1220)	UC-48	2.00	\$122	\$376	8 (3.5)
54 (1370)	UC-54	2.25	\$133	\$411	9 (4)
60 (1525)	UC-60	2.50	\$138	\$447	10 (4.5)

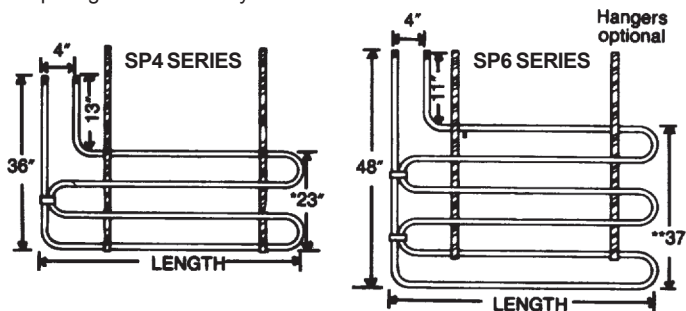
Longer lengths and bottom configurations available, consult factory for pricing for on Hastelloy C® and Zirconium.

SP Series, Serpentine Coils

Add "S" to end of Model Number for Stainless
 Add "T" to end of Model Number for Titanium
 Add "H" to end of Model Number for Hastelloy C®
 Add "Z" to end of Model Number for Zirconium

LENGTH IN. / (mm)	MODEL NUMBER	SQUARE FEET	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
24 (610)	SP4-24	2.75	\$217	\$433	10 (4.5)
36 (915)	SP4-36	3.75	\$251	\$576	12 (5.5)
48 (1220)	SP4-48	4.75	\$284	\$700	14 (6.5)
60 (1525)	SP4-60	5.75	\$313	\$821	16 (7.5)
78 (1980)	SP4-78	7.25	\$364	\$1,006	20 (9)
96 (2440)	SP4-96	8.75	\$407	\$1,191	24 (11)

Longer lengths and bottom configurations available; consult factory for pricing for on Hastelloy C® and Zirconium.



LENGTH IN. / (mm)	MODEL NUMBER	SQUARE FEET	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
20 (510)	SP6-20	3.75	\$275	\$534	12 (5.5)
30 (760)	SP6-30	5.00	\$312	\$705	14 (6.5)
40 (1015)	SP6-40	6.25	\$352	\$858	17 (8)
50 (1270)	SP6-50	7.50	\$391	\$1,014	20 (9)
60 (1525)	SP6-60	8.75	\$445	\$1,167	24 (11)
70 (1780)	SP6-70	10.00	\$470	\$1,320	27 (12.5)

Longer lengths and bottom configurations available.

Hangers with Bumpers

MATERIAL	PRICE PER HANGER FOR LENGTHS UP TO 48"	PRICE PER HANGER FOR ADDITIONAL 12" LENGTHS
T316 STAINLESS	\$35	\$5
TITANIUM	\$45	\$14

Consult factory for pricing on Hastelloy C® and Zirconium. Each hanger is furnished with two (2) tube clips and two (2) bumpers. Select bumper length and choice of material.

Shaded portion of charts indicate the item cannot ship UPS.

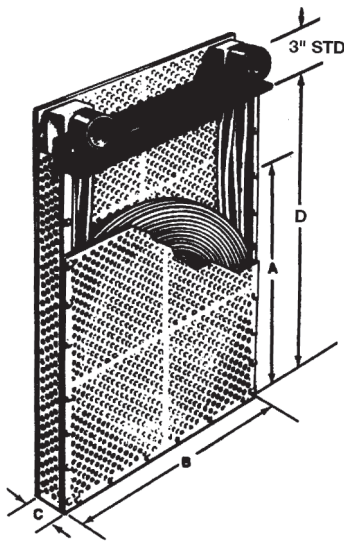
Hastelloy C® is a registered trademark of Haynes International, Inc.

Riser Extensions

Prices quoted to specifications; please consult factory.

Coil Inlet/Outlet Designators

A = 3/4" MNPT
B = 1" MNPT
C = 1 1/4" MNPT
D = 1 1/2" MNPT
E = 2" MNPT
J = 1/2" MNPT
Example: BA = 1" inlet, 3/4" outlet



X SERIES, FLUOROPOLYMER HEATING AND COOLING COILS (pg B5)								
SURFACE AREA SQ. FT.	CONNECTIONS IN.	SIZE				1/4 PRO-COIL	PRICE	SHIP WT. LBS. / (kg)
		A IN. / (mm)	B IN. / (mm)	C IN. / (mm)	D IN. / (mm)			
2.25	1/2" FNPT	11½ (292)	11½ (292)	1½ (38)	17½ (445)	X1-12-12-18-F	\$658	10 (4.5)
4.50	1/2" FNPT	11½ (292)	11½ (292)	2 (51)	17½ (445)	X2-12-12-18-F	\$1,234	11 (5)
4.50	1/2" FNPT	15½ (394)	15½ (394)	1½ (38)	21½ (546)	X2-16-16-22-F	\$1,285	13 (6)
9.25	1/2" FNPT	15½ (394)	15½ (394)	2 (51)	21½ (546)	X4-16-16-22-F	\$1,737	14 (6.5)
SURFACE AREA SQ. FT.	CONNECTIONS IN.	ROUND				1/2 PRO-COIL	PRICE	SHIP WT. LBS. / (kg)
		A IN. / (mm)	B IN. / (mm)	C IN. / (mm)	D IN. / (mm)			
6.00	1" FNPT	17½ (445)	17½ (445)	2 (51)	23½ (597)	X2-18-18-24-F-LP	\$1,495	18 (8)
12.00	1" FNPT	17½ (445)	17½ (445)	3¼ (82.5)	23½ (597)	X4-18-18-24-F-LP	\$2,045	22 (10)
18.00	1½ FNPT	17½ (445)	17½ (445)	4½ (114)	23½ (597)	X6-18-18-24-F-LP	\$2,528	26 (12)
24.00	1½ FNPT	17½ (445)	17½ (445)	5¼ (146)	23½ (597)	X8-18-18-24-F-LP	\$2,939	30 (13.5)
11.50	1" FNPT	23½ (597)	23½ (597)	2 (51)	29½ (750)	X2-24-24-30-F-LP	\$2,003	24 (11)
23.00	1" FNPT	23½ (597)	23½ (597)	3¼ (82.5)	29½ (750)	X4-24-24-30-F-LP	\$2,894	30 (13.5)
34.50	1½ FNPT	23½ (597)	23½ (597)	4½ (114)	29½ (750)	X6-24-24-30-F-LP	\$3,448	36 (16.5)
46.50	1½ FNPT	23½ (597)	23½ (597)	5¼ (146)	29½ (750)	X8-24-24-30-F-LP	\$4,392	42 (19)

30 PSI maximum, 10 PSI minimum. Consult factory for applications outside of this range. Vacuum breakers recommended (see last chart on page 21).

THERMAX ² SERIES, 316L STAINLESS HEAT EXCHANGERS (pg B10)					
EXCHANGE AREA SQ. FT.	OVERALL LENGTH IN. / (mm)	DIM. DIA. IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
1.1	6.25 (159)	2.75 (70)	IS1.1-2.75-6.25	\$1,055	5 (2.5)
2.5	10.25 (260)	2.75 (70)	IS2.5-2.75-10.25	\$1,220	7 (3)
3.8	14.25 (362)	2.75 (70)	IS3.8-2.75-14.25	\$1,262	10 (4.5)
3.8	10.75 (273)	3.75 (95)	IS3.8-3.75-10.75	\$1,474	15 (7)
5.8	15.50 (394)	3.75 (95)	IS5.8-3.75-15.5	\$1,868	20 (9)
7.8	20.25 (515)	3.75 (95)	IS7.8-3.75-20.25	\$2,178	24 (11)
15.0	20.25 (515)	4.75 (121)	IS15-4.75-20.25	\$3,178	30 (13.5)

S SERIES, BRASS SOLENOID VALVES			
(pg B15)			
SIZE (NPT)	CATALOG NUMBER	PRICE	SHIP WT. LBS./ (kg)
1/2"	S-5-W	\$118	3 (1.5)
1/2"	S-5-S	\$165	3 (1.5)
3/4"	S-3-W	\$136	4 (2)
3/4"	S-3-S	\$191	4 (2)
1"	S-1-W	\$241	6 (3)
1"	S-1-S	\$357	6 (3)
1 1/4"	S-1-1/4-W	\$291	8 (4)
1 1/4"	S-1-1/4-S	\$361	8 (4)
1 1/2"	S-1-1/2-W	\$445	10 (4.5)
1 1/2"	S-1-1/2-S	\$468	10 (4.5)
2"	S-2-W	\$786	12 (5.5)
2"	S-2-S	\$894	12 (5.5)

5 PSI minimum pressure. 120 volt solenoid. W = water service, S = steam service.

VB SERIES, VACUUM BREAKERS (pg B14)			
SIZE (NPT)	CATALOG NUMBER	PRICE	SHIP WT. LBS./ (kg)
1/2"	VB-5	\$87	2 (1)

Recommended for all fluoropolymer steam coil applications.

ST SERIES, STRAINERS (pg B16)			
SIZE (NPT)	CATALOG NUMBER	PRICE	SHIP WT. LBS./ (kg)
1/2"	ST5	\$55	2 (1)
3/4"	ST3	\$70	2 (1)
1"	ST1	\$84	3 (1.5)
1 1/4"	ST1-1/4	\$106	4 (2)
1 1/2"	ST1-1/2	\$145	6 (3)
2"	ST2	\$223	7 (3.5)
2 1/2"	ST2-1/2	\$542	9 (4)

IX SERIES, COIL INSULATORS/ISOLATORS (pg B13)					
SIZE	LENGTH IN. / (mm)	MODEL NUMBER	316 S/S	TITANIUM	SHIP WT. LBS. / (kg)
1/2"	2 (51)	IX-5	\$89	\$106	1 (.5)
3/4"	2 (51)	IX-3	\$102	\$124	1 (.5)
1"	2 1/2 (64)	IX-1	\$109	\$130	1 (.5)
1 1/4"	2 1/2 (64)	IX-1-1/4	\$115	\$148	1 (.5)
1 1/2"	2 1/2 (64)	IX-1-1/2	\$131	\$202	1 (.5)
2"	2 1/2 (64)	IX-2	\$233	\$338	1 (.5)

These are non-grounded fluoropolymer insulators to prevent plating on metal coils.

TEMPERATURE CONTROLS

NR SERIES, NON-INDICATING THERMOSTATS SINGLE PHASE						
WITH 5 FT. AND 12 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C2)						
MODEL NUMBER	TEMP. RANGE	VOLTS	MAX. AMPS	PRICE	CAP SENSOR LENGTH	SHIP WT. LBS. / (kg)
NR25	30°F-220°F	120/240	25	\$139	5'	3 (1.5)
NR25-12	30°F-220°F	120/240	25	\$194	12'	3 (1.5)
NR25H	200°F-550°F	120/240	25	\$197	5'	3 (1.5)

NR25-5L (mechanism only, less box) 5' (1.5m) cap length.....\$99
 NR25-12L (mechanism only, less box) 12' (3.5m) cap length.....\$163
 NR25H-5L (mechanism only, less box) 5' (1.5m) cap length.....\$167
 For heating only (not cooling applications).

NR SERIES, NON-INDICATING COMBINATION CONTROLS					
1 OR 3 PHASE WITH 5 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C2)					
MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE LESS TRANSFORMER	PRICE WITH TRANSFORMER	SHIP WT. LBS. / (kg)
NR302	240	30	\$351	\$407	15 (5.5)
NR304	480	30	N/A	\$407	15 (5.5)
NR502	240	50	\$414	\$476	16 (6)
NR504	480	50	N/A	\$476	16 (6)
NR752	240	75	\$596	\$711	22 (8)
NR754	480	75	N/A	\$711	22 (8)
NR902	240	90	\$686	\$795	24 (9)
NR904	480	90	N/A	\$795	24 (9)
NR1202	240	120	\$834	\$944	26 (10)
NR1204	480	120	N/A	\$944	26 (10)
NR1502	240	150	\$1,117	\$1,229	32 (12)
NR1504	480	150	N/A	\$1,229	32 (12)

Add -LT to end of model number for "Less Transformer."
 Add \$64 for 12 ft. (3.5m) capillary – Add \$68 for high temperature capillary.
 Transformer must be used on 480 volts. It is recommended for 240 volts.
 Resettable thermal protection: P2 add \$85, P3 add \$210.

DE SERIES, 1/8 DIN DIGITAL THERMOSTATS WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C7)					
MODEL NUMBER	TEMP. RANGE	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
DE20	0 - 500°F (0 - 260°C)	85-240	20	\$340	3 (1.5)
DE20-1-B	0 - 500°F (0 - 260°C)	120	20	\$514	12 (5.5)

RTD1000 replacement 10' ft. (3m) fluoropolymer (FEP) covered sensor for DE20 control\$82

DSL SERIES, 1/16 DIN DIGITAL THERMOSTATS WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C11)					
MODEL NUMBER	TEMP. RANGE	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
DSL	-100 - 500°F (-73 - 260°C)	85-265	3	\$497	2 (1)
DSL-1-B	-100 - 500°F (-73 - 260°C)	120	3	\$704	12 (5.5)

RTD1000 replacement 10' ft. (3m) fluoropolymer (FEP) covered sensor for DSL control\$82

DE SERIES, DIGITAL COMBINATION CONTROLS 1 OR 3 PHASE WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C8)					
MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE LESS TRANSFORMER	PRICE WITH TRANSFORMER	SHIP WT. LBS. / (kg)
DE302	240	30	\$681	\$774	16 (6)
DE304	480	30	N/A	\$774	17 (8)
DE502	240	50	\$744	\$837	23 (10.5)
DE504	480	50	N/A	\$837	25 (11.5)
DE752	240	75	\$893	\$1,024	27 (12.5)
DE754	480	75	N/A	\$1,024	33 (15)
DE902	240	90	\$985	\$1,131	16 (6)
DE904	480	90	N/A	\$1,131	17 (8)
DE1202	240	120	\$1,102	\$1,260	23 (10.5)
DE1204	480	120	N/A	\$1,260	25 (11.5)
DE1502	240	150	\$1,277	\$1,441	27 (12.5)
DE1504	480	150	N/A	\$1,441	33 (15)

Add -LT to end of model number for "Less Transformer." Transformer must be used on 480 volts. It is recommended for 240 volts. Resettable thermal protection: P2 add \$85, P3 add \$210.

DSL SERIES, DIGITAL COMBINATION CONTROLS 1 OR 3 PHASE WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C8)					
MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE LESS TRANSFORMER	PRICE WITH TRANSFORMER	SHIP WT. LBS. / (kg)
DSL302	240	30	\$850	\$949	16 (6)
DSL304	480	30	N/A	\$949	16 (6)
DSL502	240	50	\$913	\$1,013	17 (8)
DSL504	480	50	N/A	\$1,013	17 (8)
DSL752	240	75	\$1,064	\$1,204	23 (10.5)
DSL754	480	75	N/A	\$1,204	23 (10.5)
DSL902	240	90	\$1,155	\$1,311	25 (11.5)
DSL904	480	90	N/A	\$1,311	25 (11.5)
DSL1202	240	120	\$1,274	\$1,442	27 (12.5)
DSL1204	480	120	N/A	\$1,442	27 (12.5)
DSL1502	240	150	\$1,450	\$1,629	33 (15)
DSL1504	480	150	N/A	\$1,629	33 (15)

Add -LT to end of model number for "Less Transformer." Transformer must be used on 480 volts. It is recommended for 240 volts. Resettable thermal protection: P2 add \$85, P3 add \$210.

DQ SERIES, 1/4 DIN DIGITAL THERMOSTATS WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C9)					
MODEL NUMBER	TEMP. RANGE	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
DQ15D	0 - 500°F (0 - 260°C)	85-240	20	\$432	3 (1.5)
DQ15D-1-B	0 - 500°F (0 - 260°C)	120	20	\$611	12 (5.5)

RTD1000 replacement 10' ft. (3m) fluoropolymer (FEP) covered sensor for DQ15D control\$82
D15-10L replacement 10' ft. (3m) fluoropolymer (FEP) covered sensor for D15 control\$88

DLC SERIES, DIGITAL THERMOSTATS WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C13)					
MODEL NUMBER	TEMP. RANGE	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
DLC16-1	-58 - 302°F	120	16	\$178	3 (1.5)
DLC16-2	-58 - 302°F	240	16	\$178	3 (1.5)
DLC16-1-B	-58 - 302°F	120	16	\$261	3 (1.5)
DLC16-2-B	-58 - 302°F	240	16	\$261	3 (1.5)

DLC-5L replacement 5' ft. (1.5m) fluoropolymer sleeved thermistor.....\$59
DLC-10L replacement 10' ft. (3m) fluoropolymer sleeved thermistor.....\$82
B = Digital control mounted in an NR style plastic box.

DQ SERIES, DIGITAL COMBINATION CONTROLS 1 OR 3 PHASE WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C10)					
MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE LESS TRANSFORMER	PRICE WITH TRANSFORMER	SHIP WT. LBS. / (kg)
DQ302	240	30	\$867	\$913	16 (6)
DQ304	480	30	N/A	\$913	16 (6)
DQ502	240	50	\$930	\$975	17 (8)
DQ504	480	50	N/A	\$975	17 (8)
DQ752	240	75	\$1,087	\$1,159	23 (10.5)
DQ754	480	75	N/A	\$1,159	23 (10.5)
DQ902	240	90	\$1,178	\$1,262	25 (11.5)
DQ904	480	90	N/A	\$1,262	25 (11.5)
DQ1202	240	120	\$1,300	\$1,388	27 (12.5)
DQ1204	480	120	N/A	\$1,388	27 (12.5)
DQ1502	240	150	\$1,479	\$1,567	33 (15)
DQ1504	480	150	N/A	\$1,567	33 (15)

Add -LT to end of model number for "Less Transformer." Transformer must be used on 480 volts. It is recommended for 240 volts. Resettable thermal protection: P2 add \$85, P3 add \$210.

DLC SERIES, DIGITAL COMBINATION CONTROLS 1 OR 3 PHASE WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE (pg C14)					
MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE LESS TRANSFORMER	PRICE WITH TRANSFORMER	SHIP WT. LBS. / (kg)
DLC302	240	30	\$529	\$578	16 (6)
DLC304	480	30	N/A	\$578	16 (6)
DLC502	240	50	\$592	\$640	17 (8)
DLC504	480	50	N/A	\$640	17 (8)
DLC752	240	75	\$745	\$779	23 (10.5)
DLC754	480	75	N/A	\$779	23 (10.5)
DLC902	240	90	\$842	\$946	25 (11.5)
DLC904	480	90	N/A	\$946	25 (11.5)
DLC1202	240	120	\$967	\$1,072	27 (12.5)
DLC1204	480	120	N/A	\$1,072	27 (12.5)
DLC1502	240	150	\$1,148	\$1,247	33 (15)
DLC1504	480	150	N/A	\$1,247	33 (15)

Add -LT to end of model number for "Less Transformer." Transformer must be used on 480 volts. It is recommended for 240 volts. Resettable thermal protection: P2 add \$85, P3 add \$210.

LC SERIES, CONDUCTIVITY TYPE REMOTE LIQUID LEVEL CONTROLS
PROBE AND ELECTRONIC ASSEMBLY (consists of two components)
FIELD SELECTABLE VOLTAGE 120/240V

(pg C14)

FIRST COMPONENT (CHOOSE PROBE LENGTH AND MATERIAL):					
SINGLE LEVEL CONTROL			TWO LEVEL CONTROL		
2 PROBES			3 PROBES		
MODEL NUMBER	PROBE LENGTH (FIELD TRIM) IN. / (mm)	PRICE**	MODEL NUMBER	PROBE LENGTH (FIELD TRIM) IN. / (mm)	PRICE**
2(*) 6	6 (155)	\$116	3(*) 6	6 (155)	\$140
2(*) 12	12 (305)	\$128	3(*) 12	12 (305)	\$153
2(*) 18	18 (460)	\$144	3(*) 18	18 (460)	\$173
2(*) 24	24 (610)	\$157	3(*) 24	24 (610)	\$190
2(*) 30	30 (762)	\$180	3(*) 30	30 (762)	\$262
2(*) 36	36 (915)	\$191	3(*) 36	36 (915)	\$283
2(*) 48	48 (1220)	\$206	3(*) 48	48 (1220)	\$300

SHIPPING	
PROBE ONLY	PROBE WITH LCB
SHIP WT. LBS. / (kg)	(SEE BELOW FOR LCB INFO) SHIP WT. LBS. / (kg)
3 (1.5)	5 (2)
3 (1.5)	5 (2)
4 (2)	6 (2.5)
6 (2.5)	7 (3)
7 (3)	8 (3.5)
8 (3.5)	9 (4)
9 (4)	11 (5)

* Designate material selection in part number: S = 316 stainless steel, T = Titanium, H = Hastelloy C[®], G = Graphite (cannot be altered in field, specify exact length when ordering). **Graphite probes add \$25 per probe to prices listed. Three and four level units available, consult factory.

SECOND COMPONENT (CHOOSE ONE OF THE FOLLOWING ELECTRONIC ASSEMBLY OPTIONS):

Model LCB
 Level switch electronics (only) mounted in plastic enclosure
\$209

OR

Model LC
 Replacement level switch circuit board (only)
\$170

OR

Model LC (installed)
 Level switch circuit board (only) installed in combination control - add LC to end of control
\$195 control adder

ESP SERIES, CAPACITIVE TYPE LIQUID LEVEL CONTROLS (pg C15)						
MODEL NUMBER	VOLTS	CONTACTS	MAX. LOAD	MAX. AMB. TEMP.	PRICE	SHIP WT. LBS. / (kg)
ESP	120-265	Field Selectable	500 MA	176° F (80° C)	\$231	1 (.5)

ACCESSORIES

AHM SERIES, AMP-HOUR METER (pg C21)			
MODEL NUMBER	RECTIFIER / SHUNT SIZE	PRICE	SHIP WT. LBS./ (kg)
AHM	Specify with order	\$366	3 (1.5)

DTS SERIES, DIGITAL TIMERS (pg C16)				
MODEL NUMBER	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS./ (kg)
DTS-1	120	16	\$116	1 (.5)
DTS-B	120	16	\$189	1 (.5)

B = Digital control mounted in an NR style plastic box. The price adder to install a DTS-1 into a combo control is \$50 plus the current base price.

SD SERIES, PVC CONDUIT (pg C17)				
MODEL NUMBER	ELECTRICAL TRADE SIZE	INTERNAL DIAMETER	PRICE PER 100 FT. (92m)	WGT. PER 100 FT. LBS. / (kg)
SD 3/8	3/8"	0.472	\$184	5 (2.5)
SD 1/2	1/2"	0.630	\$222	7 (3.3)
SD 3/4	3/4"	0.866	\$257	10 (4.5)
SD 1	1"	1.102	\$395	14 (6.5)
SD 1-1/4	1-1/4"	1.378	\$553	19 (9)
SD 1-1/2	1-1/2"	1.575	\$983	23 (10.5)
SD 2	2"	1.968	\$1,338	28 (13)

SD SERIES STRAIGHT FITTINGS (pg C17)		
MODEL NUMBER	ELECTRICAL TRADE SIZE	PRICE EACH
SD 3/8-S	3/8"	\$4.62
SD 1/2-S	1/2"	\$4.77
SD 3/4-S	3/4"	\$9.38
SD-1-S	1"	\$9.89
SD 1-1/4-S	1-1/4"	\$16.53
SD 1-1/2-S	1-1/2"	\$37.34
SD 2-S	2"	\$41.46

SD SERIES 90° ELBOW FITTINGS (pg C17)		
MODEL NUMBER	ELECTRICAL TRADE SIZE	PRICE EACH
SD 3/8-EL	3/8"	\$6.42
SD 1/2-EL	1/2"	\$6.65
SD 3/4-EL	3/4"	\$12.68
SD-1-EL	1"	\$21.35
SD 1-1/4-EL	1-1/4"	\$30.33
SD 1-1/2-EL	1-1/2"	N/A
SD 2-EL	2"	N/A

W SERIES, OVER THE SIDE THERMOWELLS (pg C19)								
MATERIALS OF WELL	DIAMETER	MODEL NO. 12" (305mm)	PRICE	MODEL NO. 24" (610mm)	PRICE	MODEL NO. 36" (915mm)	PRICE	SHIP WT. LBS. / (kg)
QUARTZ	½"	WQ12	\$61	WQ24	\$71	WQ36	\$77	2 (1)
304 STAINLESS	½"	WF12	\$40	WF24	\$47	WF36	\$55	2 (1)
316 STAINLESS	½"	WS12	\$44	WS24	\$55	WS36	\$60	2 (1)
TITANIUM	½"	WT12	\$55	WT24	\$72	WT36	\$77	2 (1)
FLUOROPOLYMER (PFA)	½"	WX12	\$72	WX24	\$75	WX36	\$90	2 (1)

W SERIES, THERMOWELLS WITH ½" NPT FITTING (pg C19)								
MATERIALS OF WELL	DIAMETER	CAT. NO. 12" (305mm)	PRICE	CAT. NO. 24" (610mm)	PRICE	CAT. NO. 36" (915mm)	PRICE	SHIP WT. LBS. / (kg)
304 STAINLESS	½"	WFT12	\$70	WFT24	\$76	WFT36	\$80	2 (1)
316 STAINLESS	½"	WST12	\$80	WST24	\$83	WST36	\$88	2 (1)
TITANIUM	½"	WTT12	\$176	WTT24	\$191	WTT36	\$213	2 (1)
FLUOROPOLYMER (PFA)	½"	WXT12	\$139	WXT24	\$150	WXT36	\$160	2 (1)

REPLACEABLE THERMAL PROTECTORS						
MODEL NUMBER	ITEM #	HEATER MATERIAL	HEATER STYLE	WIRE COLOR	TEMPERATURE RANGE	PRICE EACH
P1	6021-18-R	Metal	over the side	white	up to 180°F (82°C)	\$37
P4	6022-18-R	Metal	over the side	blue	180 to 230°F (82 - 110°C)	\$37
P5	6023-18-R	Metal	over the side	red	230 to 300°F (110 - 150°C)	\$37
P1	6021-85-R	Metal	L-shaped	white	up to 180°F (82°C)	\$47
P4**	6022-85-R	Metal	L-shaped	blue	180 to 230°F (82 - 110°C)	\$47
P5	6023-85-R	Metal	L-shaped	red	230 to 300°F (110 - 150°C)	\$47
P1	6032-26-R	Fluoropolymer	over the side	red	up to 190°F (88°C)	\$37
P1	6032-48-R	Fluoropolymer	L-shaped	red	up to 190°F (88°C)	\$47
P1	6032-26-R	Quartz	over the side	red	up to 180°F (82°C)	\$37
P4	6033-26-R	Quartz	over the side	blue	180 to 230°F (82 - 110°C)	\$37

RESETTABLE THERMAL PROTECTORS						
MODEL NUMBER	ITEM #	HEATER MATERIAL	HEATER STYLE	WIRE COLOR	TEMPERATURE RANGE	PRICE EACH
P2	2804-18-R	Metal	over the side	white	up to 180°F (82°C)	\$37
P6	4047-18-R	Metal	over the side	blue	180 to 230°F (82 - 110°C)	\$37
P7	2805-18-R	Metal	over the side	red	230 to 300°F (110 - 150°C)	\$37
P2	2804-85-R	Metal	L-shaped	white	up to 180°F (82°C)	\$47
P6	4047-85-R	Metal	L-shaped	blue	180 to 230°F (82 - 110°C)	\$47
P7	2805-85-R	Metal	L-shaped	red	230 to 300°F (110 - 150°C)	\$47
P2	4575-26-R	Fluoropolymer	over the side	white	up to 190°F (88°C)	\$37
P8	5163-120-R	Fluoropolymer	over the side	brown	190 to 210°F (88 - 99°C)	\$72
P2	4575-48-R	Fluoropolymer	L-shaped	white	up to 190°F (88°C)	\$47
P8	5163-120-R	Fluoropolymer	L-shaped	brown	190 to 210°F (88 - 99°C)	\$72
P2	4575-26-R	Quartz	over the side	white	up to 180°F (82°C)	\$37
P6	5580-48-R	Quartz	over the side	blue	180 to 230°F (82 - 110°C)	\$37

CONTROL OPTIONS		
P2 loose components. Manual reset, audible alarm and latching relay. Specify 120V or 240V.		\$75
P2 combination control price adder.		\$85
P3 loose components. Manual reset, audible alarm, latching relay and preset thermostat circuit board. Specify 120V or 240V.		\$200
P3 combination control price adder.		\$210



IGNITION
SOURCE

W A R N I N G

ELECTRIC IMMERSION HEATERS MAY DAMAGE MANY PLASTIC TANKS SUCH AS POLYPROPYLENE AND POLYETHYLENE, AND SUBJECT PERSONNEL TO SHOCK HAZARD IF NOT PROPERLY INSTALLED AND MAINTAINED.



SHOCK
HAZARD

ALL HEATERS MUST BE EQUIPPED WITH A THERMAL OVERTEMPERATURE DEVICE SUCH AS A PROTECTOR 1, 2 OR 3, AND TANK MUST HAVE A LIQUID LEVEL CONTROL TO REDUCE THE POTENTIAL OF FIRE. IT IS THE CUSTOMER'S RESPONSIBILITY TO PURCHASE THERMAL AND LEVEL CONTROL PROTECTION.

• WARRANTY

All Process Technology equipment, heaters and controls have been carefully inspected before shipping and are warranted to be free from defects in workmanship and material for a period of one year from date of purchase on a prorated basis. At its option, Process Technology will repair or replace any defects which are exhibited under proper and normal use. Process Technology disclaims any responsibility for misuse, misapplication, negligence or improper installation of equipment. Process Technology makes no warranty or representation regarding the fitness for use or the application of its products by the purchaser.

PLEASE ENSURE APPLICABILITY OF HEATER BEFORE INSTALLATION SINCE WE CANNOT GUARANTEE HEATERS AGAINST PREMATURE FAILURE DUE TO CORROSION OR CHEMICAL DESTRUCTION CAUSED BY UNUSUAL CONDITIONS OVER WHICH WE HAVE NO CONTROL, SUCH AS:

- Excessively high solution temperatures
- The concentration of the solution
- The presence of inhibitors
- The presence of other acids causing a secondary reaction
- Stray electrical currents
- Flux floating on the surface
- The presence of dissolved gases
- Excessive sludge buildup
- Stagnant or turbulent flow of the solution
- Aeration
- Presence of oxygen or an oxidizing agent in the solution
- Erosion

Process Technology is not liable for costs incurred in removal, reinstallation, or unauthorized repair of the product, or for damage of any type whatsoever including incidental or consequential damage.

• NOTICE OF INCORPORATED TERMS

All sales of our Goods are subject to our standard terms and conditions of sale which are incorporated herein by reference from our website at <http://www.process-technology.com/processes/technol/terms.htm> as if fully set forth herein.

• RETURN/REPAIR INQUIRIES

Please direct all in-warranty and out-of-warranty repairs to Process Technology's Customer Service Department. Before returning any equipment, **please contact the Customer Service Department to obtain a Return Material Authorization (RMA) number and form.** The designated RMA number should then be marked on the outside of the return package and completed forms returned with the product. To avoid processing delays, please be sure to include:

- Completed RMA form and Material Safety Data Sheet (MSDS)
- Purchase order number and invoice number
- Returnee's name, address and phone number
- Model and serial number
- Repair instructions
- Complete description of problem

Items returned to Process Technology for any reason shall be via freight prepaid, unless prior arrangements have been made.

DISTRIBUTED BY:

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