PROCESS TECHNOLOGY®

2022 PRICE LIST

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GENERAL HEATER INFORMATION

OUR STANDARD HEATER IS PROVIDED WITH 36 INCHES (1m) LEADS AND CONDUIT.
ADDITIONAL LENGTHS ARE 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).

ALL HEATERS ARE AVAILABLE IN A VARIETY OF VOLTAGES. ONLY STANDARD 120, 240, AND 480 ARE REPRESENTED IN THE PRICING CHARTS. TO REQUEST A HEATER IN A DIFFERENT VOLTAGE, SUBSTITUTE THE NUMBER IN THE MODEL NUMBER WITH THE DESIGNATOR BELOW.

THERMAL OVERLOAD PROTECTION INFORMATION CAN BE FOUND ON PAGE 30.

HEATER PART NUMBER EXAMPLE - HX4429-P1 & HX4489-P1						
	SERIES	KILOWATTS	VOLTS	LENGTH		PROTECTOR
480V MODEL	HX	4	4	29	-	P1
FOR 208V	HX	4	8	29	-	P1

600 VOLT IS NOT AVAILABLE ON ANY FLUOROPOLYMER 5KW AND 6KW ELECTRIC HEATERS.

NOMINAL WATT DENSITY		
TYPE OF HEATER	WATTS PER SQ IN	WATTS PER SQ CM
FLUOROPOLYMER	10	1.5
QUARTZ	25	3.9
METAL	35	5.4
DERATED METAL	18	2.8

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

PRICING AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. PRICES FCA FACTORY.
NOTE: Custom orders may include an engineering surcharge. Minimum order - $75.00 (US).

All heaters, except screw plug heaters, feature overtemperature protectors (see page 30). 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.

FLUOROPOLYMER (PTFE) HEATERS

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

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	120 240	5 (127)	11 (279)	41 (1041)	HX.5111-** HX.5211-**	$580	HX/3HX11G	$132	6 (2.7)
1000	120 240	7 (178)	11 (279)	41 (1041)	HX1111-** HX1211-**	$641	HX/3HX11G	$132	7 (3.2)
2000	120 240 480	12 (305)	17 (432)	40 (1016)	HX2117-** HX2217-** HX2417-**	$814	HX/3HX17G	$146	8 (3.6)
3000	240 480	16 (406)	23 (584)	40 (1016)	HX3223-** HX3423-**	$984	HX/3HX23G	$157	13 (5.9)
4000	240 480	20 (508)	29 (737)	40 (1016)	HX4229-** HX4429-**	$1,328	HX/3HX29G	$167	15 (6.8)
5000	240 480	25 (635)	35 (889)	36 (914)	HX5235-** HX5435-**	$1,569	HX/3HX35G	$176	18 (8.2)
6000	240 480	29 (737)	40 (1016)	30 (762)	HX6240-** HX6440-**	$1,716	HX/3HX40G	$185	21 (9.5)
8000	240 480	37 (940)	47 (1194)	32 (813)	2HX8247-** 2HX8447-**	$2,471	HX/3HX47G	$208	25 (11.3)
9000	240 480	44 (1118)	54 (1372)	35 (889)	2HX9254-** 2HX9454-**	$2,642	HX/3HX54G	$225	28 (12.7)

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

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	120 240	6 (152)	12 (305)	41 (1041)	HXL.5106-R*-** HXL.5206-R*-**	$632	HXL06-R*G	$147	6 (2.7)
1000	120 240	8 (203)	12 (305)	41 (1041)	HXL1108-R*-** HXL1208-R*-**	$699	HXL08-R*G	$151	7 (3.2)
2000	120 240 480	12 (305)	18 (457)	40 (1016)	HXL2112-R*-** HXL2212-R*-** HXL2412-R*-**	$866	HXL12-R*G	$183	8 (3.6)
3000	240 480	17 (432)	18 (457)	40 (1016)	HXL3217-R*-** HXL3417-R*-**	$1,043	HXL17-R*G	$186	13 (5.9)
4000	240 480	20 (508)	18 (457)	40 (1016)	HXL4220-R*-** HXL4420-R*-**	$1,388	HXL20-R*G	$196	15 (6.8)
5000	240 480	24 (610)	18 (457)	36 (914)	HXL5224-R*-** HXL5424-R*-**	$1,637	HXL24-R*G	$225	18 (8.2)
6000	240 480	29 (737)	18 (457)	30 (762)	HXL6229-R*-** HXL6429-R*-**	$1,782	HXL29-R*G	$246	21 (9.5)
8000	240 480	37 (940)	18 (457)	32 (813)	2HXL8237-R*-** 2HXL8437-R*-**	$2,549	HXL37-R*G	$289	26 (11.8)
9000	240 480	44 (1118)	18 (457)	35 (889)	2HXL9244-R*-** 2HXL9444-R*-**	$2,725	HXL44-R*G	$309	29 (13.2)

Longer lengths available - consult factory. Add $3 ($8 for 2HX) for each vertical inch over standard lengths.

Guards are recommended on over-the-side heaters and required on L-Shaped heaters.

Standard guard is polypropylene. Fluoropolymer guards recommended for chromic acid and solutions exceeding 180°F (82°C), consult factory.

Add $1 per inch for extended guard lengths.

P8 protector add- $48.

600 volt not available on 5kW and 6kW heaters.

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

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	120 240	6 (152)	14 (356)	36 (914)	5 (127)	HXF.5105-14-** HXF.5205-14-**	$580	HXF05-14G	$157	6 (2.7)
1000	120 240	7 (178)	14 (356)	36 (914)	6 (152)	HXF1106-14-** HXF1206-14-**	$641	HXF06-14G	$166	7 (3.2)
2000	120 240 480	9 (229)	17 (432)	35 (889)	8 (203)	HXF2108-17-** HXF2208-17-** HXF2408-17-**	$814	HXF08-17G	$181	8 (3.6)
3000	240 480	10 (254)	23 (584)	35 (889)	9 (229)	HXF3209-23-** HXF3409-23-**	$984	HXF09-23G	$204	13 (5.9)
4000	240 480	12 (305)	29 (737)	35 (889)	11 (279)	HXF4211-29-** HXF4411-29-**	$1,328	HXF11-29G	$225	15 (6.8)
5000	240 480	13 (330)	35 (889)	31 (787)	12 (305)	HXF5212-35-** HXF5412-35-**	$1,569	HXF12-35G	$260	18 (8.2)
6000	240 480	14 (356)	40 (1016)	26 (660)	13 (330)	HXF6213-40-** HXF6413-40-**	$1,716	HXF13-40G	$286	22 (10)

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

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	120 240	5 (127)	12 (305)	36 (914)	5 (127)	HXFL.5105-R*-** HXFL.5205-R*-**	$632	HXFL05-R*G	$174	6 (2.7)
1000	120 240	6 (152)	12 (305)	36 (914)	6 (152)	HXFL1106-R*-** HXFL1206-R*-**	$699	HXFL06-R*G	$178	7 (3.2)
2000	120 240 480	8 (203)	18 (457)	35 (889)	8 (203)	HXFL2108-R*-** HXFL2208-R*-** HXFL2408-R*-**	$866	HXFL08-R*G	$193	8 (3.6)
3000	240 480	9 (229)	18 (457)	35 (889)	9 (229)	HXFL3209-R*-** HXFL3409-R*-**	$1,043	HXFL09-R*G	$226	13 (5.9)
4000	240 480	11 (279)	18 (457)	35 (889)	11 (279)	HXFL4211-R*-** HXFL4411-R*-**	$1,388	HXFL11-R*G	$246	15 (6.8)
5000	240 480	12 (305)	18 (457)	31 (787)	12 (305)	HXFL5212-R*-** HXFL5412-R*-**	$1,637	HXFL12-R*G	$274	18 (8.2)
6000	240 480	13 (330)	18 (457)	25 (635)	13 (330)	HXFL6213-R*-** HXFL6413-R*-**	$1,782	HXFL13-R*G	$296	22 (10)

*Specify vertical length by adding height in inches after "R". ** Specify thermal overload protection desired, see page 30. Guards recommended on over the side heaters and required on L-Shaped heaters, see notation above. 600 volt not available on 5kW and 6kW heaters.

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FLUOROPOLYMER (PTFE) HEATERS

HXO SERIES, FLUOROPOLYMER (PTFE) HEATERS (Single Phase Only)

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	120 240	5 (127)	6 (152)	11 (279)	36 (914)	HXO.5105-06-11-** HXO.5205-06-11-**	$666	HXO05-06-11G	$155	6 (2.7)
1000	120 240	6 (152)	7 (178)	11 (279)	36 (914)	HXO1106-07-11-** HXO1206-07-11-**	$716	HXO06-07-11G	$165	7 (3.2)
2000	120 240 480	6 (152)	10 (254)	17 (432)	35 (889)	HXO2106-10-17-** HXO2206-10-17-** HXO2406-10-17-**	$876	HXO06-10-17G	$180	8 (3.6)
3000	240 480	6 (152)	12 (305)	23 (584)	35 (889)	HXO3206-12-23-** HXO3406-12-23-**	$1,038	HXO06-12-23G	$204	13 (5.9)
4000	240 480	6 (152)	19 (483)	29 (737)	35 (889)	HXO4206-19-29-** HXO4406-19-29-**	$1,366	HXO06-19-29G	$226	15 (6.8)
5000	240 480	6 (152)	20 (508)	35 (889)	31 (787)	HXO5206-20-35-** HXO5406-20-35-**	$1,615	HXO06-20-35G	$249	18 (8.2)
6000	240 480	8 (203)	22 (559)	40 (1016)	25 (635)	HXO6208-22-40-** HXO6408-22-40-**	$1,745	HXO08-22-40G	$280	22 (10)
8000	240 480	8 (203)	36 (914)	47 (1194)	28 (711)	2HXO8208-36-47-** 2HXO8408-36-47-**	$2,661	HXO08-36-47G	$339	25 (11.3)
9000	240 480	8 (203)	40 (1016)	54 (1372)	30 (762)	2HXO9208-40-54-** 2HXO9408-40-54-**	$2,811	HXO08-40-54G	$368	28 (12.7)

*Longer lengths available - consult factory. Add $3 ($8 for 2HX) for each vertical inch over standard lengths. Guards are recommended. 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. 600 volt not available on 5kW and 6kW heaters.

3HXO SERIES, MULTI ELEMENT FLUOROPOLYMER (PTFE) HEATERS

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	120 240	10.5 (263)	6 (152)	11 (279)	36 (914)	3HXO1.5110.5-06-11-** 3HXO1.5210.5-06-11-**	$1,380	3HXO10.5-06-11G	$212	15 (6.8)
3000	240 480	11 279	6 (152)	11 (279)	36 (914)	3HXO3211-06-11-** 3HXO3411-06-11-**	$1,476	3HXO11-06-11G	$223	20 (9.1)
4500	240 480	11 279	9.5 (238)	17 (432)	35 (889)	3HXO4.5211-9.5-17-** 3HXO4.5411-9.5-17-**	$1,885	3HXO11-9.5-17G	$225	21 (9.5)
6000	240 480	13 (330)	10.5 (263)	17 (432)	35 (889)	3HXO6213-10.5-17-** 3HXO6413-10.5-17-**	$2,203	3HXO13-10.5-17G	$249	21 (9.5)
9000	240 480	13 (330)	16 (406)	23 (584)	35 (889)	3HXO9213-16-23-** 3HXO9413-16-23-**	$2,703	3HXO13-16-23G	$287	36 (16.3)
12000	240 480	13 (330)	20.5 (513)	29 (737)	35 (889)	3HXO12213-20.5-29-** 3HXO12413-20.5-29-**	$2,893	3HXO13-20.5-29G	$324	42 (19.1)
15000	240 480	13 (330)	25 (635)	35 (889)	31 (787)	3HXO15213-25-35-** 3HXO15413-25-35-**	$3,619	3HXO13-25-35G	$439	48 (21.8)
18000	240 480	13 (330)	29 (737)	40 (1016)	25 (635)	3HXO18213-29-40-** 3HXO18413-29-40-**	$4,127	3HXO13-29-40G	$510	54 (24.5)

*Longer lengths available (may alter hot zone) - consult factory. Add $12 for each vertical inch over standard lengths. Guards are recommended. Add $8 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. 3 phase standard. Single phase available as an option, add "-1" before thermal designator.

3HXOL SERIES, MULTI ELEMENT L-SHAPED FLUOROPOLYMER (PTFE) HEATERS

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	240 480	8 (203)	13 (330)	18 (457)	36 (914)	3HXOL3208-13-R*-** 3HXOL3408-13-R*-**	$1,546	3HXOL08-13-R*-G	$279	20 (9.1)
4500	240 480	10.5 (263)	11 (279)	18 (457)	35 (889)	3HXOL4.5210.5-11-R*-** 3HXOL4.5410.5-11-R*-**	$1,956	3HXOL10.5-11-R*-G	$301	21 (9.5)
6000	240 480	10.5 (263)	19 (483)	18 (457)	35 (889)	3HXOL6210.5-19-R*-** 3HXOL6410.5-19-R*-**	$2,371	3HXOL10.5-19-R*-G	$327	22 (10)
9000	240 480	10.5 (263)	23 (584)	18 (457)	35 (889)	3HXOL9210.5-23-R*-** 3HXOL9410.5-23-R*-**	$2,776	3HXOL10.5-23-R*-G	$358	36 (16.3)
12000	240 480	10.5 (263)	30 (762)	18 (457)	35 (889)	3HXOL12210.5-30-R*-** 3HXOL12410.5-30-R*-**	$2,962	3HXOL10.5-30-R*-G	$385	42 (19.1)
15000	240 480	10.5 (263)	36 (914)	18 (457)	31 (787)	3HXOL15210.5-36-R*-** 3HXOL15410.5-36-R*-**	$3,693	3HXOL10.5-36-R*-G	$502	48 (21.8)
18000	240 480	10.5 (263)	42 (1067)	18 (457)	25 (635)	3HXOL18210.5-42-R*-** 3HXOL18410.5-42-R*-**	$4,202	3HXOL10.5-42-R*-G	$573	54 (24.5)

*Longer lengths available (may alter hot zone) - consult factory. Add $12 for each vertical inch over standard lengths. Guards are recommended. Add $8 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. 3 phase standard. Single phase available as an option, add "-1" before thermal designator.

P8 protector, add $48. 600 volt not available on 5kW, 6kW, 15kW, and 18kW heaters.

*Specify vertical length by adding height in inches after "R". **Specify thermal overload protection desired, see page 30.

3HX SERIES, 3 ELEMENT FLUOROPOLYMER (PTFE) HEATERS

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	120 240	10 (254)	17 (432)	3HX1117-** 3HX1217-**	$690	HX/3HX17G	$146	10 (4.5)
1500	120 240 480	16 (406)	23 (584)	3HX1.5123-** 3HX1.5223-** 3HX1.5423-**	$837	HX/3HX23G	$157	11 (5)
2000	240 480	22 (559)	29 (737)	3HX2229-** 3HX2429-**	$942	HX/3HX29G	$167	12 (5.4)
3000	240 480	29 (737)	35 (889)	3HX3235-** 3HX3435-**	$1,163	HX/3HX35G	$176	14 (6.4)
4000	240 480	39 (991)	47 (1194)	3HX4247-** 3HX4447-**	$1,520	HX/3HX47G	$208	17 (7.7)
5000	240 480	48 (1219)	59 (1499)	3HX5259-** 3HX5459-**	$1,770	HX/3HX59G	$244	20 (9.1)
6000	240 480	56 (1422)	68 (1727)	3HX6268-** 3HX6468-**	$1,903	HX/3HX68G	$278	23 (10.4)

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

6HX SERIES, 6 ELEMENT FLUOROPOLYMER (PTFE) HEATERS

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	120 240 480	9 (229)	17 (432)	6HX2117-** 6HX2217-** 6HX2417-**	$1,212	6HX17G	$190	19 (8.6)
3000	240 480	15 (381)	23 (584)	6HX3223-** 6HX3423-**	$1,345	6HX23G	$213	22 (10)
4000	240 480	21 (533)	29 (737)	6HX4229-** 6HX4429-**	$1,519	6HX29G	$234	24 (10.9)
6000	240 480	28 (711)	35 (889)	6HX6235-** 6HX6435-**	$1,845	6HX35G	$260	27 (12.2)
8000	240 480	38 (965)	47 (1194)	6HX8247-** 6HX8447-**	$2,155	6HX47G	$306	33 (15)
10000	240 480	47 (1194)	59 (1499)	6HX10259-** 6HX10459-**	$2,622	6HX59G	$398	40 (18.1)
12000	240 480	55 (1397)	68 (1727)	6HX12268-** 6HX12468-**	$2,819	6HX68G	$457	45 (20.4)

3 phase standard. Single phase available as an option, add "-1" before thermal designator. Guards are recommended. See notation above.

9HX SERIES, 9 ELEMENT FLUOROPOLYMER (PTFE) HEATERS

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	240 480	9 (229)	17 (432)	9HX3217-** 9HX3417-**	$1,710	9HX17G	$228	28 (12.7)
4500	240 480	15 (381)	23 (584)	9HX4.5223-** 9HX4.5423-**	$1,893	9HX23G	$258	33 (15)
6000	240 480	21 (533)	29 (737)	9HX6229-** 9HX6429-**	$2,147	9HX29G	$273	36 (16.3)
9000	240 480	28 (711)	35 (889)	9HX9235-** 9HX9435-**	$2,604	9HX35G	$311	40 (18.1)
12000	240 480	38 (965)	47 (1194)	9HX12247-** 9HX12447-**	$3,043	9HX47G	$358	49 (22.2)
15000	240 480	47 (1194)	59 (1499)	9HX15259-** 9HX15459-**	$3,712	9HX59G	$467	60 (27.2)
18000	240 480	55 (1397)	68 (1727)	9HX18268-** 9HX18468-**	$3,992	9HX68G	$547	67 (30.4)

3 phase standard. Single phase available as an option, add "-1" before thermal designator. Guards are recommended. See notation above.
P8 protector, add $48.

**Specify thermal overload protection desired, see page 30.

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FLUOROPOLYMER (PTFE) HEATERS

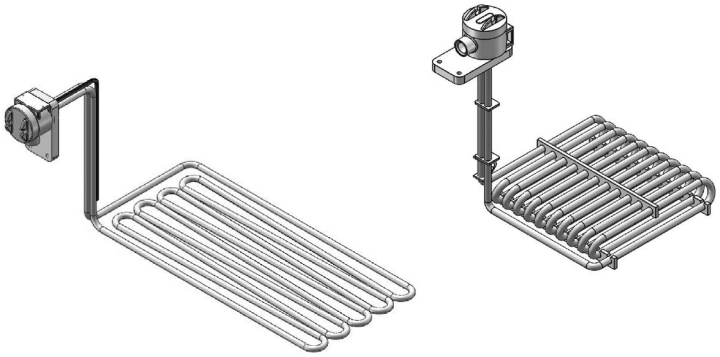
HXRL SERIES, FLEX RISER HEATERS

WATTS	VOLTS (See Pg. 2)	WIDTH IN./ (mm)	LGTH. IN./ (mm)	MODEL NUMBER	PRICE	GUARD MODEL NUMBER	GUARD PRICE	SHIP WT. LBS./ (kg)
1000	120 240	4 (102)	19 (483)	HXRL1104-19L-** HXRL1204-19L-**	$1,267	HXRL04-19GTEF	$130	6 (2.7)
		6 (152)	13 (330)	HXRL1106-13L-** HXRL1206-13L-**		HXRL06-13GTEF		
		8 (203)	10 (254)	HXRL1108-10L-** HXRL1208-10L-**		HXRL08-10GTEF		
2000	120 240 480	6 (152)	25 (635)	HXRL2106-25L-** HXRL2206-25L-** HXRL2406-25L-**	$1,720	HXRL06-25GTEF	$141	7 (3.2)
		8 (203)	19 (483)	HXRL2108-19L-** HXRL2208-19L-** HXRL2408-19L-**		HXRL08-19GTEF		
		10 (254)	15 (381)	HXRL2110-15L-** HXRL2210-15L-** HXRL2410-15L-**		HXRL10-15GTEF		
		12 (305)	13 (330)	HXRL2112-13L-** HXRL2212-13L-** HXRL2412-13L-**		HXRL12-13GTEF		
		14 (356)	11 (279)	HXRL2114-11L-** HXRL2214-11L-** HXRL2414-11L-**		HXRL14-11GTEF		
3000	240 480	10 (254)	23 (584)	HXRL3210-23L-** HXRL3410-23L-**	$2,209	HXRL10-23GTEF	$152	12 (5.4)
		12 (305)	19 (483)	HXRL3212-19L-** HXRL3412-19L-**		HXRL12-19GTEF		
		14 (356)	16 (406)	HXRL3214-16L-** HXRL3414-16L-**		HXRL14-16GTEF		
		16 (406)	14 (356)	HXRL3216-14L-** HXRL3416-14L-**		HXRL16-14GTEF		
		18 (457)	13 (330)	HXRL3218-13L-** HXRL3418-13L-**		HXRL18-13GTEF		
4000	240 480	12 (305)	25 (635)	HXRL4212-25L-** HXRL4412-25L-**	$2,317	HXRL12-25GTEF	$162	14 (6.4)
		14 (356)	22 (559)	HXRL4214-22L-** HXRL4414-22L-**		HXRL14-22GTEF		
		16 (406)	19 (483)	HXRL4216-19L-** HXRL4416-19L-**		HXRL16-19GTEF		
		18 (457)	17 (432)	HXRL4218-17L-** HXRL4418-17L-**		HXRL18-17GTEF		
		20 (508)	15 (381)	HXRL4220-15L-** HXRL4420-15L-**		HXRL20-15GTEF		
5000	240 480	12 (305)	31 (787)	HXRL5212-31L-** HXRL5412-31L-**	$2,630	HXRL12-31GTEF	$175	17 (7.7)
		14 (356)	27 (686)	HXRL5214-27L-** HXRL5414-27L-**		HXRL14-27GTEF		
		16 (406)	23 (584)	HXRL5216-23L-** HXRL5416-23L-**		HXRL16-23GTEF		
		18 (457)	21 (533)	HXRL5218-21L-** HXRL5418-21L-**		HXRL18-21GTEF		
6000	240 480	12 (305)	36 (914)	HXRL6212-36L-** HXRL6412-36L-**	$2,914	HXRL12-36GTEF	$175	20 (9.1)
		14 (356)	30 (762)	HXRL6214-30L-** HXRL6414-30L-**		HXRL14-30GTEF		
		16 (406)	26 (660)	HXRL6216-26L-** HXRL6416-26L-**		HXRL16-26GTEF		
		18 (457)	21 (533)	HXRL6220-21L-** HXRL6420-21L-**		HXRL20-21GTEF		

HXRL and HXOL heaters are available with a rigid riser and standard junction box. See examples below. Consult factory for pricing.

HXOL SERIES, FLEX RISER HEATERS

WATTS	VOLTS (See Pg. 2)	WIDTH IN./ (mm)	LGTH. IN./ (mm)	MODEL NUMBER	PRICE	GUARD MODEL NUMBER	GUARD PRICE	SHIP WT. LBS./ (kg)
1000	120 240	2 (51)	11 (279)	HXOL1102-11L-** HXOL1202-11L-**	$1,267	HXOL02-11GTEF	$130	6 (2.7)
	120 240	4 (102)	8 (203)	HXOL1104-08L-** HXOL1204-08L-**		HXOL04-08GTEF		
2000	120 240 480	4 (102)	13 (330)	HXOL2104-13L-** HXOL2204-13L-** HXOL2404-13L-**	$1,720	HXOL04-13GTEF	$141	7 (3.2)
	120 240 480	5 (127)	10 (254)	HXOL2105-10L-** HXOL2205-10L-** HXOL2405-10L-**		HXOL05-10GTEF		
	120 240 480	6 (152)	8 (203)	HXOL2106-08L-** HXOL2206-08L-** HXOL2406-08L-**		HXOL06-08GTEF		
3000	240 480	4 (102)	18 (457)	HXOL3204-18L-** HXOL3404-18L-**	$2,209	HXOL04-18GTEF	$152	12 (5.4)
	240 480	5 (127)	12 (305)	HXOL3205-12L-** HXOL3405-12L-**		HXOL05-12GTEF		
	240 480	6 (152)	11 (279)	HXOL3206-11L-** HXOL3406-11L-**		HXOL06-11GTEF		
	240 480	8 (203)	8 (203)	HXOL3208-08L-** HXOL3408-08L-**		HXOL08-08GTEF		
4000	240 480	5 (127)	18 (457)	HXOL4205-18L-** HXOL4405-18L-**	$2,317	HXOL05-18GTEF	$162	14 (6.4)
	240 480	6 (152)	14 (356)	HXOL4206-14L-** HXOL4406-14L-**		HXOL06-14GTEF		
	240 480	8 (203)	11 (279)	HXOL4208-11L-** HXOL4408-11L-**		HXOL08-11GTEF		
5000	240 480	6 (152)	18 (457)	HXOL5206-18L-** HXOL5406-18L-**	$2,630	HXOL06-18GTEF	$175	17 (7.7)
	240 480	8 (203)	13 (330)	HXOL5208-13L-** HXOL5408-13L-**		HXOL08-13GTEF		
	240 480	9 (229)	11 (279)	HXOL5209-11L-** HXOL5409-11L-**		HXOL09-11GTEF		
	240 480	10 (254)	10 (254)	HXOL5210-10L-** HXOL5410-10L-**		HXOL10-10GTEF		
6000	240 480	7 (178)	18 (457)	HXOL6207-18L-** HXOL6407-18L-**	$2,914	HXOL07-18GTEF	$175	20 (9.1)
	240 480	8 (203)	15 (381)	HXOL6208-15L-** HXOL6408-15L-**		HXOL08-15GTEF		
	240 480	9 (229)	13 (330)	HXOL6209-13L-** HXOL6409-13L-**		HXOL09-13GTEF		
	240 480	10 (254)	12 (305)	HXOL6210-12L-** HXOL6410-12L-**		HXOL10-12GTEF		
	240 480	11 (279)	11 (279)	HXOL6211-11L-** HXOL6411-11L-**		HXOL11-11GTEF		



HXSL SERIES, FLEX RISER HEATERS

WATTS	VOLTS (See Pg. 2)	WIDTH	LGTH.	MODEL NUMBER	PRICE	SHIP WT. LBS./ (kg)
1000	120 240	†	†	HXSL1000-**	$1,380	6 (2.7)
2000	120 240 480	†	†	HXSL2000-**	$1,465	7 (3.2)
3000	240 480	†	†	HXSL3000-**	$2,031	12 (5.4)
4000	240 480	†	†	HXSL4000-**	$2,128	14 (6.4)
5000	240 480	†	†	HXSL5000-**	$2,460	17 (7.7)
6000	240 480	†	†	HXSL6000-**	$2,742	20 (9.1)

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

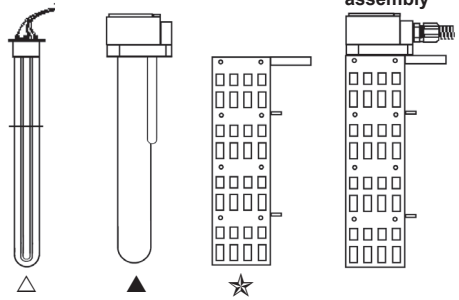
HXRL, HXSL and HXOL heaters are provided with 4' (1.3m) of flexible continuous fluoropolymer leads as standard. Longer lengths are available at $7 per inch (2.54cm). Rigid risers can also be provided, consult factory. 600 volt not available on 5kW and 6kW heaters.

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.
**Specify thermal overload protection desired, see page 30.

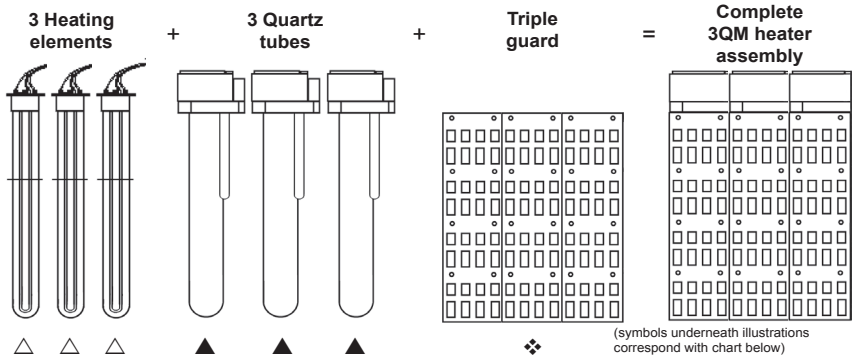
Each single tube quartz heater consists of:

Heating element + Quartz tube + Single guard = Complete QM heater assembly



Each triple tube quartz heater consists of:

3 Heating elements + 3 Quartz tubes + Triple guard = Complete 3QM heater assembly



(symbols underneath illustrations correspond with chart below)

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QM SERIES, QUARTZ HEATERS WITH METAL ELEMENTS								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	120 240	7 (178)	10 (254)	QM.5110E QM.5210E	$248	QM.510J-**	$160	QM10G	$102	3QM10G	$194	9 (4.1)	21 (9.5)
1000	120 240	7 (178)	11 (279)	QM1111E QM1211E	$251	QM111J-**	$161	QM11G		3QM11G		10 (4.5)	22 (10)
1000	120 240	7 (178)	17 (432)	QM1117E QM1217E	$290	QM117J-**	$205	QM17G	$114	3QM17G	$205	11 (5)	26 (11.8)
2000	240 480	12 (305)	17 (432)	QM2217E QM2417E		QM217J-**						11 (5)	26 (11.8)
2000	240 480	12 (305)	23 (584)	QM2223E QM2423E	$336	QM223J-**	$239	QM23G	$124	3QM23G	$236	14 (6.4)	30 (13.6)
3000	240 480	18 (457)	23 (584)	QM3223E QM3423E		QM323J-**						14 (6.4)	30 (13.6)
3000	240 480	18 (457)	29 (737)	QM3229E QM3429E	$391	QM329J-**	$261	QM29G	$136	3QM29G	$253	17 (7.7)	34 (15.4)
3500	240 480	21 (533)	29 (737)	QM3.5229E QM3.5429E		QM3.529J-**						17 (7.7)	34 (15.4)
4000	240 480	28 (711)	35 (889)	QM4235E QM4435E	$409	QM435J-**	$289	QM35G	$148	3QM35G	$284	20 (9.1)	38 (17.2)
4000	240 480	28 (711)	41 (1041)	QM4241E QM4441E	$456	QM441J-**	$332	QM41G	$164	3QM41G	$298	23 (10.4)	44 (20)
5000	240 480	33 (838)	41 (1041)	QM5241E QM5441E		QM541J-**						23 (10.4)	44 (20)
5000	240 480	33 (838)	47 (1194)	QM5247E QM5447E	$549	QM547J-**	$353	QM47G	$177	3QM47G	$335	26 (11.8)	48 (21.8)
6000	240 480	39 (991)	47 (1194)	QM6247E QM6447E		QM647J-**						26 (11.8)	48 (21.8)
6000	240 480	39 (991)	52 (1321)	QM6252E QM6452E	$600	QM652J-**	$372	QM52G	$190	3QM52G	$345	29 (13.2)	52 (23.6)
8000	240 480	49 (1245)	59 (1499)	QM8259E QM8459E	$659	QM859J-**	$388	QM59G	$212	3QM59G	$358	31 (14.1)	55 (25)
10000	240 480	62 (1575)	71 (1803)	QM10271E QM10471E	$790	QM1071J-**	$452	QM71G	$242	3QM71G	$395	34 (15.4)	65 (29.5)

Single phase standard, three phase available - add "-3" after element designator, no extra charge. If ordering tubes only, please supply element voltage and phase. Standard guard is polypropylene. Fluoropolymer guard available and must be used in chromic acid. - consult factory for pricing.
**Specify thermal overload protection desired, see page 30.

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METAL OVER THE SIDE HEATERS

P, F, S & T SERIES, METAL OVER THE SIDE HEATERS (Single Phase Standard)†												
				PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP
WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	WT. LBS./(kg)
1000	120 240	6 (152)	11 (279)	P1111-*-** P1211-*-**	$233	F1111-*-** F1211-*-**	$239	S1111-*-** S1211-*-**	$254	T1111-*-** T1211-*-**	$328	7 (3.2)
2000	240 480	10 (254)	17 (432)	P2217-*-** P2417-*-**	$260	F2217-*-** F2417-*-**	$280	S2217-*-** S2417-*-**	$312	T2217-*-** T2417-*-**	$435	10 (4.5)
3000	240 480	16 (406)	23 (584)	P3223-*-** P3423-*-**	$277	F3223-*-** F3423-*-**	$310	S3223-*-** S3423-*-**	$335	T3223-*-** T3423-*-**	$488	11 (5)
4000	240 480	20 (508)	29 (737)	P4229-*-** P4429-*-**	$307	F4229-*-** F4429-*-**	$339	S4229-*-** S4429-*-**	$356	T4229-*-** T4429-*-**	$587	13 (5.9)
5000	240 480	25 (635)	35 (889)	P5235-*-** P5435-*-**	$352	F5235-*-** F5435-*-**	$381	S5235-*-** S5435-*-**	$416	T5235-*-** T5435-*-**	$685	15 (6.8)
6000	240 480	30 (762)	40 (1016)	P6240-*-** P6440-*-**	$364	F6240-*-** F6440-*-**	$411	S6240-*-** S6440-*-**	$449	T6240-*-** T6440-*-**	$730	17 (7.7)
8000	240 480	37 (940)	47 (1194)	P8247-*-** P8447-*-**	$459	F8247-*-** F8447-*-**	$492	S8247-*-** S8447-*-**	$542	T8247-*-** T8447-*-**	$841	23 (10.4)
9000	240 480	44 (1118)	54 (1372)	P9254-*-** P9454-*-**	$513	F9254-*-** F9454-*-**	$523	S9254-*-** S9454-*-**	$580	T9254-*-** T9454-*-**	$925	24 (10.9)
10000	240 480	49 (1245)	59 (1499)	P10259-*-** P10459-*-**	$542	F10259-*-** F10459-*-**	$637	S10259-*-** S10459-*-**	$701	T10259-*-** T10459-*-**	$1,092	25 (11.3)
12000	480	58 (1473)	68 (1727)	P12468-*-**	$596	F12468-*-**	$699	S12468-*-**	$772	T12468-*-**	$1,251	28 (12.7)

†Three phase available as an option for 10% additional - add "-3" before thermal designator*. All metal welded head available. Add M following heater length in the model number and add $197.00 to the list price for plain, 304SS, & 316SS; add $268.00 for titanium. The metal head option requires a resettable protector (P2) and control components.

3P, 3F, 3S & 3T SERIES, TRIPLE METAL OVER THE SIDE HEATERS ††												
				PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP
WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	WT. LBS./(kg)
3000	240 480	6 (152)	11 (279)	3P3211-*-** 3P3411-*-**	$699	3F3211-*-** 3F3411-*-**	$713	3S3211-*-** 3S3411-*-**	$756	3T3211-*-** 3T3411-*-**	$948	21 (9.5)
6000	240 480	10 (254)	17 (432)	3P6217-*-** 3P6417-*-**	$781	3F6217-*-** 3F6417-*-**	$841	3S6217-*-** 3S6417-*-**	$933	3T6217-*-** 3T6417-*-**	$1,304	30 (13.6)
9000	240 480	16 (406)	23 (584)	3P9223-*-** 3P9423-*-**	$834	3F9223-*-** 3F9423-*-**	$932	3S9223-*-** 3S9423-*-**	$1,005	3T9223-*-** 3T9423-*-**	$1,465	33 (15)
12000	240 480	20 (508)	29 (737)	3P12229-*-** 3P12429-*-**	$921	3F12229-*-** 3F12429-*-**	$1,017	3S12229-*-** 3S12429-*-**	$1,067	3T12229-*-** 3T12429-*-**	$1,762	39 (17.7)
15000	240 480	25 (635)	35 (889)	3P15235-*-** 3P15435-*-**	$1,049	3F15235-*-** 3F15435-*-**	$1,142	3S15235-*-** 3S15435-*-**	$1,248	3T15235-*-** 3T15435-*-**	$2,051	45 (20.4)
18000	240 480	30 (762)	40 (1016)	3P18240-*-** 3P18440-*-**	$1,099	3F18240-*-** 3F18440-*-**	$1,233	3S18240-*-** 3S18440-*-**	$1,346	3T18240-*-** 3T18440-*-**	$2,191	51 (23.1)
24000	240 480	37 (940)	47 (1194)	3P24247-*-** 3P24447-*-**	$1,378	3F24247-*-** 3F24447-*-**	$1,478	3S24247-*-** 3S24447-*-**	$1,628	3T24247-*-** 3T24447-*-**	$2,520	63 (28.6)
27000	480	44 (1118)	54 (1372)	3P27454-*-**	$1,538	3F27454-*-**	$1,648	3S27454-*-**	$1,742	3T27454-*-**	$2,776	69 (31.3)
30000	480	49 (1245)	59 (1499)	3P30459-*-**	$1,628	3F30459-*-**	$1,910	3S30459-*-**	$2,103	3T30459-*-**	$3,437	75 (34)
36000	480	58 (1473)	68 (1727)	3P36468-*-**	$1,789	3F36468-*-**	$2,093	3S36468-*-**	$2,308	3T36468-*-**	$3,752	84 (38.1)

†Standard is single head and conduit. *Add "-1" for single phase or "-3" for three phase. For individual heads order 3 single tubes. Add M following heater length in the model number and add $235.00 to the list price for plain, 304SS, & 316SS; add $294.00 for titanium. The metal head option requires a resettable protector (P2) and control components.

**Specify thermal overload protection desired, see page 30.

METAL DERATED OVER THE SIDE HEATERS

D SERIES, DERATED METAL OVER THE SIDE HEATERS (Single Phase Standard)												
				PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP
WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	WT. LBS./(kg)
500	120 240	6 (152)	11 (279)	DP.5111-*-** DP.5211-*-**	$233	DF.5111-*-** DF.5211-*-**	$239	DS.5111-*-** DS.5211-*-**	$254	DT.5111-*-** DT.5211-*-**	$328	7 (3.2)
1000	240 480	10 (254)	17 (432)	DP1217-*-** DP1417-*-**	$260	DF1217-*-** DF1417-*-**	$280	DS1217-*-** DS1417-*-**	$312	DT1217-*-** DT1417-*-**	$435	10 (4.5)
1500	240 480	16 (406)	23 (584)	DP1.5223-*-** DP1.5423-*-**	$277	DF1.5223-*-** DF1.5423-*-**	$310	DS1.5223-*-** DS1.5423-*-**	$335	DT1.5223-*-** DT1.5423-*-**	$488	11 (5)
2000	240 480	20 (508)	29 (737)	DP2229-*-** DP2429-*-**	$307	DF2229-*-** DF2429-*-**	$339	DS2229-*-** DS2429-*-**	$356	DT2229-*-** DT2429-*-**	$587	13 (5.9)
2500	240 480	25 (635)	35 (889)	DP2.5235-*-** DP2.5435-*-**	$352	DF2.5235-*-** DF2.5435-*-**	$381	DS2.5235-*-** DS2.5435-*-**	$416	DT2.5235-*-** DT2.5435-*-**	$685	15 (6.8)
3000	240 480	30 (762)	40 (1016)	DP3240-*-** DP3440-*-**	$364	DF3240-*-** DF3440-*-**	$411	DS3240-*-** DS3440-*-**	$449	DT3240-*-** DT3440-*-**	$730	17 (7.7)
4000	240 480	37 (940)	47 (1194)	DP4247-*-** DP4447-*-**	$459	DF4247-*-** DF4447-*-**	$492	DS4247-*-** DS4447-*-**	$542	DT4247-*-** DT4447-*-**	$841	23 (10.4)
4500	240 480	44 (1118)	54 (1372)	DP4.5254-*-** DP4.5454-*-**	$513	DF4.5254-*-** DF4.5454-*-**	$523	DS4.5254-*-** DS4.5454-*-**	$580	DT4.5254-*-** DT4.5454-*-**	$925	24 (10.9)
5000	240 480	49 (1245)	59 (1499)	DP5259-*-** DP5459-*-**	$542	DF5259-*-** DF5459-*-**	$637	DS5259-*-** DS5459-*-**	$701	DT5259-*-** DT5459-*-**	$1,092	25 (11.3)
6000	240 480	58 (1473)	68 (1727)	DP6268-*-** DP6468-*-**	$596	DF6268-*-** DF6468-*-**	$699	DS6268-*-** DS6468-*-**	$772	DT6268-*-** DT6468-*-**	$1,251	28 (12.7)

*Three phase available as an option for 10% additional - add "-3" before thermal designator. All metal welded head available. Add M following heater length in the model number and add $197.00 to the list price for plain, 304SS, & 316SS; add $268.00 for titanium. The metal head option requires a resettable protector (P2) and control components.

D3 SERIES, DERATED TRIPLE METAL OVER THE SIDE HEATERS††												
				PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP
WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	WT. LBS. / (kg)
1500	120 240	6 (152)	11 (279)	D3P1.5111-*-** D3P1.5211-*-**	$699	D3F1.5111-*-** D3F1.5211-*-**	$713	D3S1.5111-*-** D3S1.5211-*-**	$756	D3T1.5111-*-** D3T1.5211-*-**	$983	21 (9.5)
3000	240 480	10 (254)	17 (432)	D3P3217-*-** D3P3417-*-**	$781	D3F3217-*-** D3F3417-*-**	$841	D3S3217-*-** D3S3417-*-**	$933	D3T3217-*-** D3T3417-*-**	$1,304	30 (13.6)
4500	240 480	16 (406)	23 (584)	D3P4.5223-*-** D3P4.5423-*-**	$834	D3F4.5223-*-** D3F4.5423-*-**	$932	D3S4.5223-*-** D3S4.5423-*-**	$1,005	D3T4.5223-*-** D3T4.5423-*-**	$1,465	33 (15)
6000	240 480	20 (508)	29 (737)	D3P6229-*-** D3P6429-*-**	$921	D3F6229-*-** D3F6429-*-**	$1,017	D3S6229-*-** D3S6429-*-**	$1,067	D3T6229-*-** D3T6429-*-**	$1,762	39 (17.7)
7500	240 480	25 (635)	35 (889)	D3P7.5235-*-** D3P7.5435-*-**	$1,049	D3F7.5235-*-** D3F7.5435-*-**	$1,142	D3S7.5235-*-** D3S7.5435-*-**	$1,248	D3T7.5235-*-** D3T7.5435-*-**	$2,051	45 (20.4)
9000	240 480	30 (762)	40 (1016)	D3P9240-*-** D3P9440-*-**	$1,099	D3F9240-*-** D3F9440-*-**	$1,233	D3S9240-*-** D3S9440-*-**	$1,346	D3T9240-*-** D3T9440-*-**	$2,191	51 (23.1)
12000	240 480	37 (940)	47 (1194)	D3P12247-*-** D3P12447-*-**	$1,378	D3F12247-*-** D3F12447-*-**	$1,478	D3S12247-*-** D3S12447-*-**	$1,628	D3T12247-*-** D3T12447-*-**	$2,520	63 (28.6)
13500	240 480	44 (1118)	54 (1372)	D3P13.5254-*-** D3P13.5454-*-**	$1,538	D3F13.5254-*-** D3F13.5454-*-**	$1,648	D3S13.5254-*-** D3S13.5454-*-**	$1,742	D3T13.5254-*-** D3T13.5454-*-**	$2,776	69 (31.3)
15000	240 480	49 (1245)	59 (1499)	D3P15259-*-** D3P15459-*-**	$1,628	D3F15259-*-** D3F15459-*-**	$1,910	D3S15259-*-** D3S15459-*-**	$2,103	D3T15259-*-** D3T15459-*-**	$3,437	75 (34)
18000	240 480	58 (1473)	68 (1727)	D3P18268-*-** D3P18468-*-**	$1,789	D3F18268-*-** D3F18468-*-**	$2,093	D3S18268-*-** D3S18468-*-**	$2,308	D3T18268-*-** D3T18468-*-**	$3,752	84 (38.1)

Standard is single head and conduit. *Add "-1" for single phase or "-3" for three phase. For individual heads order 3 single tubes. Add M following heater length in the model number and add $235.00 to the list price for plain, 304SS, & 316SS; add $294.00 for titanium. The metal head option requires a resettable protector (P2) and control components.

**Specify thermal overload protection desired, see page 30.

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METAL BOTTOM HEATERS

L SERIES, METAL L-SHAPED HEATERS (Single Phase Standard)†												
				PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT.
WATTS	VOLTS (See Pg. 2)	HORIZ. IN. / (mm)	STD. VERT.** IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	LBS. / (kg)
1000	120 240	13 (330)	15 (381)	LP1113Q-R*-** LP1213Q-R*-**	$456	LF1113Q-R*-** LF1213Q-R*-**	$470	LS1113Q-R*-** LS1213Q-R*-**	$490	LT1113Q-R*-** LT1213Q-R*-**	$658	10 (4.5)
2000	120 240 480	17 (432)	19 (483)	LP2117Q-R*-** LP2217Q-R*-** LP2417Q-R*-**	$485	LF2117Q-R*-** LF2217Q-R*-** LF2417Q-R*-**	$508	LS2117Q-R*-** LS2217Q-R*-** LS2417Q-R*-**	$536	LT2117Q-R*-** LT2217Q-R*-** LT2417Q-R*-**	$764	11 (5)
3000	240 480	22 (559)	25 (635)	LP3222Q-R*-** LP3422Q-R*-**	$550	LF3222Q-R*-** LF3422Q-R*-**	$563	LS3222Q-R*-** LS3422Q-R*-**	$608	LT3222Q-R*-** LT3422Q-R*-**	$872	12 (5.4)
4000	240 480	26 (660)	25 (635)	LP4226Q-R*-** LP4426Q-R*-**	$589	LF4226Q-R*-** LF4426Q-R*-**	$619	LS4226Q-R*-** LS4426Q-R*-**	$650	LT4226Q-R*-** LT4426Q-R*-**	$948	13 (5.9)
5000	240 480	31 (787)	37 (940)	LP5231Q-R*-** LP5431Q-R*-**	$661	LF5231Q-R*-** LF5431Q-R*-**	$674	LS5231Q-R*-** LS5431Q-R*-**	$713	LT5231Q-R*-** LT5431Q-R*-**	$1,112	14 (6.4)
6000	240 480	36 (914)	50 (1270)	LP6236Q-R*-** LP6436Q-R*-**	$726	LF6236Q-R*-** LF6436Q-R*-**	$737	LS6236Q-R*-** LS6436Q-R*-**	$783	LT6236Q-R*-** LT6436Q-R*-**	$1,269	15 (6.8)
8000	240 480	44 (1118)	50 (1270)	LP8244Q-R*-** LP8444Q-R*-**	$788	LF8244Q-R*-** LF8444Q-R*-**	$783	LS8244Q-R*-** LS8444Q-R*-**	$890	LT8244Q-R*-** LT8444Q-R*-**	$1,409	18 (8.2)
9000	240 480	50 (1270)	50 (1270)	LP9250Q-R*-** LP9450Q-R*-**	$828	LF9250Q-R*-** LF9450Q-R*-**	$815	LS9250Q-R*-** LS9450Q-R*-**	$938	LT9250Q-R*-** LT9450Q-R*-**	$1,498	20 (9.1)
10000	240 480	55 (1397)	50 (1270)	LP10255Q-R*-** LP10455Q-R*-**	$908	LF10255Q-R*-** LF10455Q-R*-**	$921	LS10255Q-R*-** LS10455Q-R*-**	$1,046	LT10255Q-R*-** LT10455Q-R*-**	$1,596	22 (10)
12000	480	64 (1626)	50 (1270)	LP12464Q-R*-**	$1,009	LF12464Q-R*-**	$1,005	LS12464Q-R*-**	$1,129	LT12464Q-R*-**	$1,699	25 (11.3)

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

Longer rigid riser vertical lengths available - add $6 per inch (2.5cm) for steel and stainless steel or $10 per inch (2.54cm) for titanium over standard length. Flexible fluoropolymer riser available on metal L-shaped heaters (P2 system only). 48" (1.3m) standard, add "FR" to part number - price adder of $220. Longer lengths of flexible riser available - add $87 per foot (30.48cm).

*Specify vertical length by adding height in inches after "R". **Specify thermal overload protection desired, see page 30.

Shaded portion of charts indicate the item must ship LTL.

3L SERIES, TRIPLE METAL L-SHAPED HEATERS (Three Phase Standard)†††												
				PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP WT.
WATTS	VOLTS (See Pg. 2)	HORIZ. IN. / (mm)	STD. VERT.** IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	LBS. / (kg)
3000	240 480	13 (330)	15 (381)	3LP3213Q-R*-** 3LP3413Q-R*-**	$760	3LF3213Q-R*-** 3LF3413Q-R*-**	$855	3LS3213Q-R*-** 3LS3413Q-R*-**	$911	3LT3213Q-R*-** 3LT3413Q-R*-**	$1,277	30 (13.6)
6000	240 480	17 (432)	37 (940)	3LP6217Q-R*-** 3LP6417Q-R*-**	$911	3LF6217Q-R*-** 3LF6417Q-R*-**	$1,008	3LS6217Q-R*-** 3LS6417Q-R*-**	$1,096	3LT6217Q-R*-** 3LT6417Q-R*-**	$1,662	33 (15)
9000	240 480	22 (559)	37 (940)	3LP9222Q-R*-** 3LP9422Q-R*-**	$1,016	3LF9222Q-R*-** 3LF9422Q-R*-**	$1,103	3LS9222Q-R*-** 3LS9422Q-R*-**	$1,308	3LT9222Q-R*-** 3LT9422Q-R*-**	$1,905	36 (16.3)
12000	240 480	26 (660)	37 (940)	3LP12226Q-R*-** 3LP12426Q-R*-**	$1,114	3LF12226Q-R*-** 3LF12426Q-R*-**	$1,234	3LS12226Q-R*- 3LS12426Q-R*-	$1,408	3LT12226Q-R*-** 3LT12426Q-R*-**	$2,046	39 (17.7)
15000	240 480	31 (787)	37 (940)	3LP15231Q-R*-** 3LP15431Q-R*-**	$1,250	3LF15231Q-R*-** 3LF15431Q-R*-**	$1,343	3LS15231Q-R*- 3LS15431Q-R*-	$1,542	3LT15231Q-R*-** 3LT15431Q-R*-**	$2,427	42 (19.1)
18000	240 480	36 (914)	50 (1270)	3LP18236Q-R*-** 3LP18436Q-R*-**	$1,363	3LF18236Q-R*-** 3LF18436Q-R*-**	$1,488	3LS18236Q-R*- 3LS18436Q-R*-	$1,652	3LT18236Q-R*-** 3LT18436Q-R*-**	$2,767	45 (20.4)
24000	240 480	44 (1118)	50 (1270)	3LP24244Q-R*-** 3LP24444Q-R*-**	$1,601	3LF24244Q-R*-** 3LF24444Q-R*-**	$1,757	3LS24244Q-R*- 3LS24444Q-R*-	$1,905	3LT24244Q-R*-** 3LT24444Q-R*-**	$3,189	54 (24.5)
27000	480	50 (1270)	50 (1270)	3LP27450Q-R*-**	$1,797	3LF27450Q-R*-**	$1,933	3LS27450Q-R*-	$2,125	3LT27450Q-R*-**	$3,493	60 (27.2)
30000	480	55 (1397)	50 (1270)	3LP30455Q-R*-**	$2,066	3LF30455Q-R*-**	$2,293	3LS30455Q-R*-	$2,728	3LT30455Q-R*-**	$4,098	66 (29.9)
36000	480	64 (1626)	50 (1270)	3LP36464Q-R*-**	$2,291	3LF36464Q-R*-**	$2,515	3LS36464Q-R*-	$3,140	3LT36464Q-R*-**	$4,971	75 (34)

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

Longer rigid riser vertical lengths available - add $6 per inch (2.5cm) for steel and stainless steel or $10 per inch (2.54cm) for titanium over standard length. Flexible fluoropolymer riser available on metal L-shaped heaters (P2 system only). 48" (1.3m) standard, add "FR" to part number - price adder of $220. Longer lengths of flexible riser available - add $87 per foot (30.48cm).

*Specify vertical length by adding height in inches after "R". **Specify thermal overload protection desired, see page 30.

Shaded portion of charts indicate the item must ship LTL.

METAL DERATED BOTTOM HEATERS

DL SERIES, DERATED METAL L-SHAPED HEATERS (Single Phase Standard)†

				PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP
WATTS	VOLTS (See Pg. 2)	HORIZ. IN./(mm)	STD. VERT.* IN./(mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	WT. LBS. / (kg)
500	120 240	13 (330)	15 (381)	DLP.5113Q-R*-** DLP.5213Q-R*-**	$456	DLF.5113Q-R*-** DLF.5213Q-R*-**	$470	DLS.5113Q-R*-** DLS.5213Q-R*-**	$490	DLT.5113Q-R*-** DLT.5213Q-R*-**	$658	10 (4.5)
1000	120 240	17 (432)	19 (483)	DLP1117Q-R*-** DLP1217Q-R*-**	$485	DLF1117Q-R*-** DLF1217Q-R*-**	$508	DLS1117Q-R*-** DLS1217Q-R*-**	$536	DLT1117Q-R*-** DLT1217Q-R*-**	$764	11 (5)
1500	120 240	22 (559)	25 (635)	DLP1.5122Q-R*-** DLP1.5222Q-R*-**	$550	DLF1.5122Q-R*-** DLF1.5222Q-R*-**	$563	DLS1.5122Q-R*-** DLS1.5222Q-R*-**	$608	DLT1.5122Q-R*-** DLT1.5222Q-R*-**	$872	12 (5.4)
2000	240 480	26 (660)	25 (635)	DLP2226Q-R*-** DLP2426Q-R*-**	$589	DLF2226Q-R*-** DLF2426Q-R*-**	$619	DLS2226Q-R*-** DLS2426Q-R*-**	$650	DLT2226Q-R*-** DLT2426Q-R*-**	$948	13 (5.9)
2500	240 480	31 (787)	37 (940)	DLP2.5231Q-R*-** DLP2.5431Q-R*-**	$661	DLF2.5231Q-R*-** DLF2.5431Q-R*-**	$674	DLS2.5231Q-R*-** DLS2.5431Q-R*-**	$713	DLT2.5231Q-R*-** DLT2.5431Q-R*-**	$1,112	14 (6.4)
3000	240 480	36 (914)	50 (1270)	DLP3236Q-R*-** DLP3436Q-R*-**	$726	DLF3236Q-R*-** DLF3436Q-R*-**	$737	DLS3236Q-R*-** DLS3436Q-R*-**	$783	DLT3236Q-R*-** DLT3436Q-R*-**	$1,269	15 (6.8)
4000	240 480	44 (1118)	50 (1270)	DLP4244Q-R*-** DLP4444Q-R*-**	$788	DLF4244Q-R*-** DLF4444Q-R*-**	$783	DLS4244Q-R*-** DLS4444Q-R*-**	$890	DLT4244Q-R*-** DLT4444Q-R*-**	$1,409	18 (8.2)
4500	240 480	50 (1270)	50 (1270)	DLP4.5250Q-R*-** DLP4.5450Q-R*-**	$828	DLF4.5250Q-R*-** DLF4.5450Q-R*-**	$815	DLS4.5250Q-R*-** DLS4.5450Q-R*-**	$938	DLT4.5250Q-R*-** DLT4.5450Q-R*-**	$1,498	20 (9.1)
5000	240 480	55 (1397)	50 (1270)	DLP5255Q-R*-** DLP5455Q-R*-**	$908	DLF5255Q-R*-** DLF5455Q-R*-**	$921	DLS5255Q-R*-** DLS5455Q-R*-**	$1,046	DLT5255Q-R*-** DLT5455Q-R*-**	$1,596	22 (10)
6000	240 480	64 (1626)	50 (1270)	DLP6264Q-R*-** DLP6464Q-R*-**	$1,009	DLF6264Q-R*-** DLF6464Q-R*-**	$1,005	DLS6264Q-R*-** DLS6464Q-R*-**	$1,129	DLT6264Q-R*-** DLT6464Q-R*-**	$1,699	25 (11.3)

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

Longer rigid riser vertical lengths available - add $6 per inch (2.5cm) for steel and stainless steel or $10 per inch (2.54cm) for titanium over standard length.
Flexible fluoropolymer riser available on metal L-shaped heaters (P2 system only). 48" (1.3m) standard, add "FR" to part number - price adder of $220.
Longer lengths of flexible riser available - add $87 per foot (30.48cm).

*Specify vertical length by adding height in inches after "R". **Specify thermal overload protection desired, see page 30.

Shaded portion of charts indicate the item must ship LTL.

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

				PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP
WATTS	VOLTS (See Pg. 2)	HORIZ. IN./(mm)	STD. VERT.* IN./(mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	WT. LBS. / (kg)
1500	120 240	13 (330)	15 (381)	D3LP1.5113Q-R*-** D3LP1.5213Q-R*-**	$760	D3LF1.5113Q-R*-* D3LF1.5213Q-R*-*	$855	D3LS1.5113Q-R*-** D3LS1.5213Q-R*-**	$911	D3LT1.5113Q-R*-** D3LT1.5213Q-R*-**	$1,277	30 (13.6)
3000	240 240	17 (432)	19 (483)	D3LP3217Q-R*-** D3LP3417Q-R*-**	$911	D3LF3217Q-R*-** D3LF3417Q-R*-**	$1,008	D3LS3217Q-R*-** D3LS3417Q-R*-**	$1,096	D3LT3217Q-R*-** D3LT3417Q-R*-**	$1,662	33 (15)
4500	240 480	22 (559)	25 (635)	D3LP4.5222Q-R*-** D3LP4.5422Q-R*-**	$1,016	D3LF4.5222Q-R*-* D3LF4.5422Q-R*-*	$1,103	D3LS4.5222Q-R*-** D3LS4.5422Q-R*-**	$1,308	D3LT4.5222Q-R*-** D3LT4.5422Q-R*-**	$1,905	36 (16.3)
6000	240 480	26 (660)	25 (635)	D3LP6226Q-R*-** D3LP6426Q-R*-**	$1,114	D3LF6226Q-R*-** D3LF6426Q-R*-**	$1,234	D3LS6226Q-R*-** D3LS6426Q-R*-**	$1,408	D3LT6226Q-R*-** D3LT6426Q-R*-**	$2,046	39 (17.7)
7500	240 480	31 (787)	37 (940)	D3LP7.5231Q-R*-** D3LP7.5431Q-R*-**	$1,250	D3LF7.5231Q-R*-* D3LF7.5431Q-R*-*	$1,343	D3LS7.5231Q-R*-** D3LS7.5431Q-R*-**	$1,542	D3LT7.5231Q-R*-** D3LT7.5431Q-R*-**	$2,427	42 (19.1)
9000	240 480	36 (914)	50 (1270)	D3LP9236Q-R*-** D3LP9436Q-R*-**	$1,363	D3LF9236Q-R*-** D3LF9436Q-R*-**	$1,488	D3LS9236Q-R*-** D3LS9436Q-R*-**	$1,652	D3LT9236Q-R*-** D3LT9436Q-R*-**	$2,767	45 (20.4)
12000	240 480	44 (1118)	50 (1270)	D3LP12244Q-R*-** D3LP12444Q-R*-**	$1,601	D3LF12244Q-R*-** D3LF12444Q-R*-**	$1,757	D3LS12244Q-R*-** D3LS12444Q-R*-**	$1,905	D3LT12244Q-R*-** D3LT12444Q-R*-**	$3,189	54 (24.5)
13500	240 480	50 (1270)	50 (1270)	D3LP13.5250Q-R*-** D3LP13.5450Q-R*-**	$1,797	D3LF13.5250Q-R*- D3LF13.5450Q-R*-	$1,933	D3LS13.5250Q-R*-** D3LS13.5450Q-R*-**	$2,125	D3LT13.5250Q-R*-** D3LT13.5450Q-R*-**	$3,493	60 (27.2)
15000	240 480	55 (1397)	50 (1270)	D3LP15255Q-R*-** D3LP15455Q-R*-**	$2,066	D3LF15255Q-R*-** D3LF15455Q-R*-**	$2,293	D3LS15255Q-R*-** D3LS15455Q-R*-**	$2,728	D3LT15255Q-R*-** D3LT15455Q-R*-**	$4,098	66 (29.9)
18000	240 480	64 (1626)	50 (1270)	D3LP18264Q-R*-** D3LP18464Q-R*-**	$2,291	D3LF18264Q-R*-** D3LF18464Q-R*-**	$2,515	D3LS18264Q-R*-** D3LS18464Q-R*-**	$3,140	D3LT18264Q-R*-** D3LT18464Q-R*-**	$4,971	75 (34)

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

Longer rigid riser vertical lengths available - add $6 per inch (2.5cm) for steel and stainless steel or $10 per inch (2.54cm) for titanium over standard length.
Flexible fluoropolymer riser available on metal L-shaped heaters (P2 system only). 48" (1.3m) standard, add "FR" to part number - price adder of $220.
Longer lengths of flexible riser available - add $87 per foot (30.48cm).

*Specify vertical length by adding height in inches after "R". **Specify thermal overload protection desired, see page 30.

Shaded portion of charts indicate the item must ship LTL.

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METAL VERTICAL BOTTOM HEATERS

3LV SERIES, VERTICAL STACK TRIPLE METAL L-SHAPED HEATERS (Three Phase Standard)†												
				PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM		SHIP
WATTS	VOLTS (See Pg. 2)	HORIZ. IN./(mm)	STD. VERT.† IN./(mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	WT. LBS. / (kg)
3000	240 480	13 (330)	15 (381)	3LVP3213Q-R*-** 3LVP3413Q-R*-**	$760	3LVF3213Q-R*-** 3LVF3413Q-R*-**	$855	3LVS3213Q-R*-** 3LVS3413Q-R*-**	$911	3LVT3213Q-R*-** 3LVT3413Q-R*-**	$1,277	30 (13.6)
6000	240 480	17 (432)	37 (940)	3LVP6217Q-R*-** 3LVP6417Q-R*-**	$911	3LVF6217Q-R*-** 3LVF6417Q-R*-**	$1,008	3LVS6217Q-R*-** 3LVS6417Q-R*-**	$1,096	3LVT6217Q-R*-** 3LVT6417Q-R*-**	$1,662	33 (15)
9000	240 480	22 (559)	37 (940)	3LVP9222Q-R*-** 3LVP9422Q-R*-**	$1,016	3LVF9222Q-R*-** 3LVF9422Q-R*-**	$1,103	3LVS9222Q-R*-** 3LVS9422Q-R*-**	$1,308	3LVT9222Q-R*-** 3LVT9422Q-R*-**	$1,905	36 (16.3)
12000	240 480	26 (660)	37 (940)	3LVP12226Q-R*-** 3LVP12426Q-R*-**	$1,114	3LVF12226Q-R*-** 3LVF12426Q-R*-**	$1,234	3LVS12226Q-R*-** 3LVS12426Q-R*-**	$1,408	3LVT12226Q-R*-** 3LVT12426Q-R*-**	$2,046	39 (17.7)
15000	240 480	31 (787)	37 (940)	3LVP15231Q-R*-** 3LVP15431Q-R*-**	$1,250	3LVF15231Q-R*-** 3LVF15431Q-R*-**	$1,343	3LVS15231Q-R*-** 3LVS15431Q-R*-**	$1,542	3LVT15231Q-R*-** 3LVT15431Q-R*-**	$2,427	42 (19.1)
18000	240 480	36 (914)	50 (1270)	3LVP18236Q-R*-** 3LVP18436Q-R*-**	$1,363	3LVF18236Q-R*-** 3LVF18436Q-R*-**	$1,488	3LVS18236Q-R*-** 3LVS18436Q-R*-**	$1,652	3LVT18236Q-R*-** 3LVT18436Q-R*-**	$2,767	45 (20.4)
24000	240 480	44 (1118)	50 (1270)	3LVP24244Q-R*-** 3LVP24444Q-R*-**	$1,601	3LVF24244Q-R*-** 3LVF24444Q-R*-**	$1,757	3LVS24244Q-R*-** 3LVS24444Q-R*-**	$1,905	3LVT24244Q-R*-** 3LVT24444Q-R*-**	$3,189	54 (24.5)
27000	480	50 (1270)	50 (1270)	3LVP27450Q-R*-**	$1,797	3LVF27450Q-R*-**	$1,933	3LVS27450Q-R*-**	$2,125	3LVT27450Q-R*-**	$3,493	60 (27.2)
30000	480	55 (1397)	50 (1270)	3LVP30455Q-R*-**	$2,066	3LVF30455Q-R*-**	$2,293	3LVS30455Q-R*-**	$2,728	3LVT30455Q-R*-**	$4,098	66 (29.9)
36000	480	64 (1626)	50 (1270)	3LVP36464Q-R*-**	$2,291	3LVF36464Q-R*-**	$2,515	3LVS36464Q-R*-**	$3,140	3LVT36464Q-R*-**	$4,971	75 (34)

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

Longer rigid riser vertical lengths available - add $6 per inch (2.5cm) for steel and stainless steel or $10 per inch (2.54cm) for titanium over standard length. Flexible fluoropolymer riser available on metal L-shaped heaters (P2 system only). 48" (1.3m) standard, add "FR" to part number - price adder of $220. Longer lengths of flexible riser available - add $87 per foot (30.48cm).

*Specify vertical length by adding height in inches after "R". **Specify thermal overload protection desired, see page 30.

Shaded portion of charts indicate the item must ship LTL.

DEEP TANK HEATERS

3V SERIES, TRIPLE METAL DEEP TANK HEATERS (Three Phase Standard)†									
			PLAIN STEEL		304 STAINLESS		316 STAINLESS		TITANIUM	
WATTS	VOLTS (see Pg. 2)	THREE TUBE LENGTH IN./(mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE
18000	240 480	36 (914)	3VP18236-** 3VP18436-**	$1,502	3VF18236-** 3VF18436-**	$1,592	3VS18236-** 3VS18436-**	$1,781	3VT18236-** 3VT18436-**	$2,717
24000	240 480	44 (1118)	3VP24244-** 3VP24444-**	$1,732	3VF24244-** 3VF24444-**	$1,886	3VS24244-** 3VS24444-**	$2,028	3VT24244-** 3VT24444-**	$3,139
27000	480	50 (1270)	3VP27450-**	$1,917	3VF27450-**	$2,057	3VS27450-**	$2,252	3VT27450-**	$3,444
30000	480	55 (11397)	3VP30455-**	$2,192	3VF30455-**	$2,414	3VS30455-**	$2,845	3VT30455-**	$4,087
36000	480	64 (1626)	3VP36464-**	$2,418	3VF36464-**	$2,634	3VS36464-**	$3,258	3VT36464-**	$4,902
45000*	480	77 (1956)	3VP45477-**	$2,872	3VF45477-**	$3,170	3VS45477-**	$3,994	3VT45477-**	$5,943
48000*	480	82 (2083)	3VP48482-**	$3,027	3VF48482-**	$3,347	3VS48482-**	$4,260	3VT48482-**	$6,308
54000*	480	91 (2311)	3VP54491-**	$3,211	3VF54491-**	$3,707	3VS54491-**	$4,723	3VT54491-**	$7,028
*Not UL Listed										

P2 thermal protection standard. 12 inch minimum riser length. Add $8 per every vertical riser inch (2.54cm) for steel, 304 stainless steel and 316 stainless steel. Add $15 per inch (2.54cm) for titanium models.

Shaded portion of charts indicate the item must ship LTL.

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

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
3000	240 480	11 (279)	17 (432)	3HS3217-** 3HS3417-**	$559	9 (4.1)
4500	240 480	16 (406)	23 (584)	3HS4.5223-** 3HS4.5423-**	$641	10 (4.5)
7500	240 480	21 (533)	29 (737)	3HS7.5229-** 3HS7.5429-**	$897	12 (5.4)
10500	240 480	26 (660)	34 (864)	3HS10.5234-** 3HS10.5434-**	$1,169	14 (6.4)

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

WATTS	VOLTS (See Pg. 2	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
6000	240 480	10 (254)	17 (432)	6HS6217-** 6HS6417-**	$915	12 (5.4)
9000	240 480	16 (406)	23 (584)	6HS9223-** 6HS9423-**	$1,029	13 (5.9)
15000	240 480	20 (508)	29 (737)	6HS15229-** 6HS15429-**	$1,357	16 (7.3)
21000	240 480	25 (635)	34 (864)	6HS21234-** 6HS21434-**	$1,600	18 (8.2)

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

WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
9000	240 480	10 (254)	17 (432)	9HS9217-** 9HS9417-**	$1,061	16 (7.3)
13500	240 480	16 (406)	23 (584)	9HS13.5223-** 9HS13.5423-**	$1,208	19 (8.6)
22500	240 480	20 (508)	29 (737)	9HS22.5229-** 9HS22.5429-**	$1,605	23 (10.4)
31500	240*	25 (635)	34 (864)	9HS31.5234M-**	$2,479	25 (11.3)
31500	480	25 (635)	34 (864)	9HS31.5434-**	$2,184	25 (11.3)

*Requires welded metal junction box and permanent P2 thermal overload protection.

"M" in model number = metal head.

**Specify thermal overload protection desired, see page 30.

DAS SERIES, OVER-THE-SIDE 316 STAINLESS STEEL PHOSPHATE HEATERS

WATTS	VOLTS	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
1000	120 240	7 (178)	11 (279)	DAS1111-P4 DAS1211-P4	$1,156	17 (7.7)
2000	240 480	12 (305)	17 (432)	DAS2217-P4 DAS2417-P4	$1,217	20 (9.1)
3000	240 480	18 (457)	23 (584)	DAS3223-P4 DAS3423-P4	$1,231	24 (10.9)
3500	240 480	21 (533)	29 (737)	DAS3.5229-P4 DAS3.5429-P4	$1,294	30 (13.6)
4000	240 480	28 (711)	35 (889)	DAS4235-P4 DAS4435-P4	$1,396	36 (16.3)
5000	240 480	33 (838)	41 (1041)	DAS5241-P4 DAS5441-P4	$1,519	42 (19.1)
6000	240 480	39 (991)	47 (1194)	DAS6247-P4 DAS6447-P4	$1,716	48 (21.8)
8000	240 480	49 (1245)	59 (1499)	DAS8259-P4 DAS8459-P4	$2,165	58 (26.3)
10000	240 480	62 (1575)	71 (1803)	DAS10271-P4 DAS10471-P4	$2,354	64 (29)

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

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VARIPOWER, SMALL TANK & SCREWPLUG HEATERS

V SERIES, VARIPOWER HEATERS (1/2" Dia.)										
				316 STAINLESS		TITANIUM		FLUOROPOLYMER		
WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	SHIP WT. LBS./(kg)
100	120 240	4 (102)	7 (178)	VS.1107 VS.1207	$312	VT.1107 VT.1207	$362	VX.1107 VX.1207	$391	.5 (.23)
300	120 240	6 (152)	11 (279)	VS.3111 VS.3211	$986	VT.3111 VT.3211	$1,033	VX.3111 VX.3211	$1,044	.5 (.23)
500	120 240	6 (152)	11 (279)	VS.5111 VS.5211	$1,379	VT.5111 VT.5211	$1,447	VX.5111 VX.5211	$1,456	.5 (.23)
1000	120 240	6 (152)	11 (279)	VS1111 VS1211	$2,064	VT1111 VT1211	$2,199	VX1111 VX1211	$2,246	.5 (.23)

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

B SERIES, SMALL TANK METAL HEATERS (1-1/4" Dia.)										
				304 STAINLESS		316 STAINLESS		TITANIUM		
WATTS	VOLTS (See Pg. 2)	HOT ZONE IN. / (mm)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	SHIP WT. LBS./(kg)
500	120 240	5 (127)	10 (254)	FB.5110-** FB.5210-**	$283	SB.5110-** SB.5210-**	$314	TB.5110-** TB.5210-**	$393	5 (2.3)
1000	120 240	8 (203)	14 (356)	FB1114-** FB1214-**	$292	SB1114-** SB1214-**	$317	TB1114-** TB1214-**	$413	6 (2.7)
1500	120 240	11 (279)	17 (432)	FB1.5117-** FB1.5217-**	$319	SB1.5117-** SB1.5217-**	$349	TB1.5117-** TB1.5217-**	$477	8 (3.6)
2000	240	14 (356)	23 (584)	FB2223-**	$371	SB2223-**	$409	TB2223-**	$549	9 (4.1)

Single phase only. Plug-in option with 8.5' (2.6m) flexible cord available on 500 watt or 1000 watt, 120 VAC models only - add $97 to control price and add $44 to heater, consult factory. **Specify thermal overload protection desired, see page 30.

V*T SERIES, 1/2" VARIPOWER SCREW PLUG HEATERS										
				316 STAINLESS		TITANIUM		FLUOROPOLYMER		
WATTS	VOLTS (See Pg. 2)	(NPT) IN.	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	SHIP WT. LBS./(kg)
100	120 240	1/2	7 (178)	VST.1107 VST.1207	$419	VTT.1107 VTT.1207	$573	VXT.1107 VXT.1207	$460	1 (.45)
200	120 240	1/2	10 (254)	VST.2110 VST.2210	$591	VTT.2110 VTT.2210	$718	VXT.2110 VXT.2210	$663	1 (.45)

Single phase only.

TB SERIES, 1¼" SMALL TANK SCREW PLUG HEATERS										
				304 STAINLESS		316 STAINLESS		TITANIUM		
WATTS	VOLTS (See Pg. 2)	(NPT) IN.	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	MODEL NUMBER	PRICE	SHIP WT. LBS./(kg)
500	120 240	1¼	8 (203)	FTB.5108 FTB.5208	$448	STB.5108 STB.5208	$480	TTB.5108 TTB.5208	$915	8 (3.6)
1000	120 240	1¼	10 (254)	FTB1110 FTB1210	$452	STB1110 STB1210	$491	TTB1110 TTB1210	$921	10 (4.5)
1500	120 240	1¼	14 (356)	FTB1.5114 FTB1.5214	$480	STB1.5114 STB1.5214	$522	TTB1.5114 TTB1.5214	$988	14 (6.4)
2000	120 240	1¼	17 (432)	FTB2117 FTB2217	$508	STB2117 STB2217	$557	TTB2117 TTB2217	$1,058	17 (7.7)

Single phase only. Plug-in option with 8.5' (2.6m) flexible cord available on 500 watt or 1000 watt, 120 VAC models only - add $97 to control price and add $44 to heater, consult factory.

HXT SERIES, FLUOROPOLYMER (PTFE) SCREW PLUG HEATERS†						
WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
1000	120 240	2½	9 (229)	HXT1109 HXT1209	$1,683	9 (4.1)
2000	240 480	2½	14 (356)	HXT2214 HXT2414	$1,833	12 (5.4)
3000	240 480	2½	19 (483)	HXT3219 HXT3419	$2,106	15 (6.8)
4000	240 480	2½	26 (660)	HXT4226 HXT4426	$2,336	17 (7.7)
5000	240 480	2½	30 (762)	HXT5230 HXT5430	$2,659	20 (9.1)
6000	240 480	2½	34 (864)	HXT6234 HXT6434	$2,931	23 (10.4)

†Single phase only.

T SERIES, 2" TUBULAR SCREW PLUG HEATERS (Single Phase Standard)†

WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	LENGTH IN. / (mm)	304 STAINLESS MODEL NUMBER	304 STAINLESS PRICE	316 STAINLESS MODEL NUMBER	316 STAINLESS PRICE	TITANIUM MODEL NUMBER	TITANIUM PRICE	SHIP WT. LBS./(kg)
1000	120 240	2	10 (254)	FT1110 FT1210	$435	ST1110 ST1210	$469	TT1110 TT1210	$1,287	11 (5)
2000	120 240 480	2	14 (356)	FT2114 FT2214 FT2414	$467	ST2114 ST2214 ST2414	$525	TT2114 TT2214 TT2414	$1,348	14 (6.4)
3000	240 480	2	19 (483)	FT3219 FT3419	$501	ST3219 ST3419	$579	TT3219 TT3419	$1,428	16 (7.3)
4000	240 480	2	23 (584)	FT4223 FT4423	$533	ST4223 ST4423	$616	TT4223 TT4423	$1,506	20 (9.1)
6000	240 480	2	33 (838)	FT6233 FT6433	$613	ST6233 ST6433	$716	TT6233 TT6433	$1,662	26 (11.8)
8000	240 480	2	40 (1016)	FT8240 FT8440	$696	ST8240 ST8440	$822	TT8240 TT8440	$1,849	29 (13.2)
9000	240 480	2	47 (1194)	FT9247 FT9447	$765	ST9247 ST9447	$851	TT9247 TT9447	$2,042	32 (14.5)
12000	480	2	61 (1549)	FT12461	$852	ST12461	$907	TT12461	$2,402	37 (16.8)

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

2T SERIES, 2" 316 STAINLESS SCREW PLUG HEATERS†

WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	NUMBER OF ELEMENTS	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
2000	240 480	2	2	8 (203)	2T2208 2T2408	$661	5 (2.3)
3000	240 480	2	2	12 (305)	2T3212 2T3412	$682	6 (2.7)
4000	240 480	2	2	18 (457)	2T4218 2T4418	$732	7 (3.2)
6000	240 480	2	2	25 (635)	2T6225 2T6425	$786	8 (3.6)
8000	240 480	2	2	32 (813)	2T8232 2T8432	$830	10 (4.5)
10000	240 480	2	2	40 (1016)	2T10240 2T10440	$988	10 (4.5)
12000	480	2	2	48 (1219)	2T12448	$1,042	12 (5.4)
15000	480	2	2	54 (1372)	2T15454	$1,080	15 (6.8)

T2T SERIES, 2" TITANIUM SCREW PLUG HEATERS†

WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
2000	240 480	2	8 (203)	T2T2208 T2T2408	$1,691	4 (1.8)
4000	240 480	2	18 (457)	T2T4218 T2T4418	$1,848	6 (2.7)
6000	240 480	2	25 (635)	T2T6225 T2T6425	$2,099	7 (3.2)
8000	240 480	2	32 (813)	T2T8232 T2T8432	$2,290	8 (3.6)
12000	480	2	48 (1219)	T2T12448	$2,503	10 (4.5)

†Single phase standard, three element three phase available as an option, consult factory.

5T SERIES, 2 1/2" 316 STAINLESS SCREW PLUG HEATERS††

WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	NUMBER OF ELEMENTS	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
4500	240 480	2½	3	12 (305)	5T4.5212 5T4.5412	$869	7 (3.2)
6000	240 480	2½	3	18 (457)	5T6218 5T6418	$954	8 (3.6)
9000	240 480	2½	3	25 (635)	5T9225 5T9425	$1,035	10 (4.5)
12000	240 480	2½	3	32 (813)	5T12232 5T12432	$1,151	10 (4.5)
15000	240 480	2½	3	40 (1016)	5T15240 5T15440	$1,317	12 (5.4)
18000	240 480	2½	3	48 (1219)	5T18248 5T18448	$1,375	15 (6.8)

T5T SERIES, 2½" TITANIUM SCREW PLUG HEATERS††)

WATTS	VOLTS (See Pg. 2)	PIPE THREAD (NPT) IN.	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
3000	240 480	2½	8 (203)	T5T3208 T5T3408	$1,935	5 (2.3)
6000	240 480	2½	18 (457)	T5T6218 T5T6418	$2,125	6 (2.7)
9000	240 480	2½	25 (635)	T5T9225 T5T9425	$2,404	7 (3.2)
12000	240 480	2½	32 (813)	T5T12232 T5T12432	$2,671	8 (3.6)
18000	240 480	2½	48 (1219)	T5T18248 T5T18448	$3,006	13 (5.9)

††Three phase standard, single phase available as an option, add "-1" to end of model number.

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FLANGED HEATERS

3FLX SERIES, 3" 150# FLANGED FLUOROPOLYMER (PTFE) HEATERS (Single Phase Only)

WATTS	VOLTS (See Pg. 2)	NUMBER OF ELEMENTS	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
1000	120 240	1	11 (279)	3FLX1111-* 3FLX1211-*	$3,235	20 (9.1)
2000	240 480	1	16 (406)	3FLX2216-* 3FLX2416-*	$3,375	23 (10.4)
3000	240 480	1	21 (533)	3FLX3221-* 3FLX3421-*	$3,503	26 (11.8)
4000	240 480	1	28 (711)	3FLX4228-* 3FLX4428-*	$3,638	29 (13.2)
5000	240 480	1	32 (813)	3FLX5232-* 3FLX5432-*	$3,819	32 (14.5)
6000	240 480	1	35 (889)	3FLX6235-* 3FLX6435-*	$3,996	35 (15.9)

NOTE: Heater rated for 50 PSI.

6FLX SERIES, 6" 150# FLANGED FLUOROPOLYMER (PTFE) HEATERS (Three Phase Standard)††

WATTS	VOLTS (See Pg. 2)	NUMBER OF ELEMENTS	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
3000	240 480	3	11 (279)	6FLX3211-* 6FLX3411-*	$8,268	42 (19.1)
6000	240 480	3	16 (406)	6FLX6216-* 6FLX6416-*	$8,789	51 (23.1)
9000	240 480	3	21 (533)	6FLX9221-* 6FLX9421-*	$9,700	60 (27.2)
12000	240 480	3	28 (711)	6FLX12228-* 6FLX12428-*	$10,480	66 (29.9)
15000	240 480	3	32 (813)	6FLX15232-* 6FLX15432-*	$11,622	75 (34)
18000	240 480	3	35 (889)	6FLX18235-* 6FLX18435-*	$12,537	84 (38.1)

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

NOTE: Heater rated for 50 PSI.

*Specify P2 or P8 thermal overload protection desired, see page 30.

3" 150 LB. 316 STAINLESS FLANGE (3 ELEMENTS)

WATTS	VOLTS (See Pg. 2)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
3000	240 480	9 (229)	3FLS3209-* 3FLS3409-*	$1,315	14 (6.4)
4500	240 480	13 (330)	3FLS4.5213-* 3FLS4.5413-*	$1,443	15 (6.8)
6000	240 480	19 (483)	3FLS6219-* 3FLS6419-*	$1,580	16 (7.3)
9000	240 480	26 (660)	3FLS9226-* 3FLS9426-*	$1,738	17 (7.7)
12000	240 480	33 (838)	3FLS12233-* 3FLS12433-*	$1,963	18 (8.2)
15000	240 480	41 (1041)	3FLS15241-* 3FLS15441-*	$2,131	20 (9.1)
18000	240 480	49 (1245)	3FLS18249-* 3FLS18449-*	$2,346	21 (9.5)

5" 150 LB. 316 STAINLESS FLANGE (6 ELEMENTS)

WATTS	VOLTS (See Pg. 2)	LENGTH IN. / (mm)	MODEL NUMBER	PRICE	SHIP WT. LBS. / (kg)
6000	240 480	9 (229)	5FLS6209-* 5FLS6409-*	$2,322	25 (11.3)
9000	240 480	13 (330)	5FLS9213-* 5FLS9413-*	$2,490	28 (12.7)
12000	240 480	19 (483)	5FLS12219-* 5FLS12419-*	$2,691	30 (13.6)
18000	240 480	26 (660)	5FLS18226-* 5FLS18426-*	$2,972	33 (15)
24000	240 480	33 (838)	5FLS24233-* 5FLS24433-*	$3,167	37 (16.8)
30000	240 480	41 (1041)	5FLS30241-* 5FLS30441-*	$3,496	40 (18.1)
36000	240 480	49 (1245)	5FLS36249-* 5FLS36449-*	$3,779	43 (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	240 480	9 (229)	6FLS12209-* 6FLS12409-*	$4,753	48 (21.8)
18000	240 480	13 (330)	6FLS18213-* 6FLS18413-*	$4,972	54 (24.5)
24000	240 480	19 (483)	6FLS24219-* 6FLS24419-*	$5,178	60 (27.2)
36000	240 480	26 (660)	6FLS36226-* 6FLS36426-*	$5,479	67 (30.4)
48000	240 480	33 (838)	6FLS48233-* 6FLS48433-*	$5,734	76 (34.5)
60000	240 480	41 (1041)	6FLS60241-* 6FLS60441-*	$5,914	84 (38.1)
72000	240 480	49 (1245)	6FLS72249-* 6FLS72449-*	$6,310	111 (50.4)

- 316 stainless steel standard.
- Three phase standard, single phase available as option.
- Optional materials:
  TITANIUM = FLT
- P1 thermal overload protection standard.
- Additional options include:
  - Resettable thermal protector (see page 30)
  - Explosion resistant enclosures
  - Custom sizes
  - Metric sizes
  - Thermowells

*Specify thermal overload protection desired, see page 30.

RESISTIVE STYLE *EASYPLUG*™ OVER-THE-SIDE HEATERS (controls sold separately)								
WATTS	VOLTS	HOT ZONE In./(mm)	OVERALL LENGTH In./(mm)	316 STAINLESS MODEL NUMBER (FOR FRESH WATER)	LIST PRICE	TITANIUM MODEL NUMBER (FOR SALT WATER)	LIST PRICE	SHIP WGT. Lbs./(kg)
1000	120 240	7 (178)	11 (279)	ESA1111-P1 ESA1211-P1	**$263**	ETA1111-P1 ETA1211-P1	**$336**	6 (2.7)
1800	240	12 (305)	17 (432)	ESA1.8217-P1	**$295**	ETA1.8217-P1	**$393**	9(4.1)

RESISTIVE STYLE *EASYPLUG* ™ BOTTOM HEATERS (controls sold separately) (single phase only)								
WATTS	VOLTS	HORIZONTAL LENGTH In./(mm)	STANDARD VERTICAL In./(mm)	316 STAINLESS MODEL NUMBER (FOR FRESH WATER)	LIST PRICE	TITANIUM MODEL NUMBER (FOR SALT WATER)	LIST PRICE	SHIP WGT. Lbs./(kg)
1000	120 240	11 (279)	24 (610)	ELSA1111-R24S-P1 ELSA1211-R24S-P1	**$485**	ELTA1111-R24S-P1 ELTA1211-R24S-P1	**$658**	8 (3.6)
1800	240	16 (406)	24 (610)	ELSA1.8216-R24S-P1	**$515**	ELTA1.8216-R24S-P1	**$698**	11(5)

AQUACULTURE RESISTIVE SINGLE TUBE OVER THE SIDE HEATERS (single phase only)								
WATTS	VOLTS	HOT ZONE In./(mm)	OVERALL LENGTH In./(mm)	316 STAINLESS MODEL NUMBER (FOR FRESH WATER)	LIST PRICE	TITANIUM MODEL NUMBER (FOR SALT WATER)	LIST PRICE	SHIP WGT. Lbs./(kg)
1000	120 240	7 (178)	11 (279)	SA1111-P1 SA1211-P1	**$217**	TA1111-P1 TA1211-P1	**$290**	5 (2.3)
1800	120 240	12 (305)	17 (432)	SA1.8117-P1* SA1.8217-P1*	**$248**	TA1.8117-P1* TA1.8217-P1*	**$347**	8 (3.6)
2500	240	17 (432)	23 (584)	SA2.5223-P1*	**$274**	TA2.5223-P1*	**$412**	10 (4.5)
3500	240	23 (584)	29 (737)	SA3.5229-P1*	**$295**	TA3.5229-P1*	**$479**	13 (5.9)
5000	240	32 (813)	39 (991)	SA5239-P1*	**$404**	TA5239-P1*	**$617**	16 (7.3)
6000	240	40 (1016)	47 (1194)	SA6247-P1*	**$432**	TA6247-P1*	**$659**	19 (8.6)

AQUACULTURE RESISTIVE SINGLE TUBE BOTTOM HEATERS (single phase only)								
WATTS	VOLTS	HORIZONTAL LENGTH In./(mm)	STANDARD VERTICAL In./(mm)	316 STAINLESS MODEL NUMBER (FOR FRESH WATER)	LIST PRICE	TITANIUM MODEL NUMBER (FOR SALT WATER)	LIST PRICE	SHIP WGT. Lbs./(kg)
1000	120 240	11 (279)	24 (610)	LSA1111-R24S-P1 LSA1211-R24S-P1	**$438**	LTA1111-R24S-P1 LTA1211-R24S-P1	**$610**	7 (3.2)
1800	120 240	16 (406)	24 (610)	LSA1.8116-R24S-P1* LSA1.8216-R24S-P1*	**$469**	LTA1.8116-R24S-P1* LTA1.8216-R24S-P1*	**$652**	10 (4.5)
2500	240	21 (533)	24 (610)	LSA2.5221-R24S-P1*	**$486**	LTA2.5221-R24S-P1*	**$680**	12 (5.4)
3500	240	27 (686)	24 (610)	LSA3.5227-R24S-P1*	**$508**	LTA3.5227-R24S-P1*	**$744**	15 (6.8)
5000	240	36 (914)	48 (1219)	LSA5236-R48S-P1*	**$581**	LTA5236-R48S-P1*	**$954**	18 (8.2)
6000	240	44 (1118)	48 (1219)	LSA6244-R48S-P1*	**$610**	LTA6244-R48S-P1*	**$993**	21 (9.5)

AQUACULTURE RESISTIVE 1-1/4" NPT SCREW PLUG HEATERS (single phase only)							
WATTS	VOLTS	OVERALL LENGTH In./(mm)	316 STAINLESS MODEL NUMBER (FOR FRESH WATER)	LIST PRICE	TITANIUM MODEL NUMBER (FOR SALT WATER)	LIST PRICE	SHIP WGT. Lbs./(kg)
1000	120 240	10 (254)	STA1110 STA1210	**$379**	TTA1110 TTA1210	**$1,056**	6 (2.7)
1800	120 240	15 (381)	STA1.8115* STA1.8215*	**$409**	TTA1.8115* TTA1.8215*	**$1,124**	8 (3.6)
2500	240	20 (508)	STA2.5220*	**$437**	TTA2.5220*	**$1,166**	11 (5)
3500	240	26 (660)	STA3.5226*	**$493**	TTA3.5226*	**$1,259**	13 (5.9)
5000	240	35 (889)	STA5235*	**$516**	TTA5235*	**$1,332**	15 (6.8)
6000	240	43 (1092)	STA6243*	**$545**	TTA6243*	**$1,404**	18 (8.2)

For Aquaculture use only. No warranty if used for Industrial applications.

EasyPlug heaters come with 8.5' cord/plug. Easy plug control is required.See page 24 for controls for these heaters.

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QUARTZ INFRARED ELEMENTS

Q SERIES, QUARTZ INFRARED HEATING ELEMENTS					
OVERALL LENGTH	HOT ZONE	WATTS	VOLTS (See page 1)	MODEL NUMBERS	PRICE
22	18	500	120	Q*51-*22	$86
22	18		240	Q*52-*22	
22	18	750	120	Q*71-*22	
22	18		240	Q*72-*22	
22	18	1000	120	Q*101-*22	
22	18		240	Q*102-*22	
22	18	1250	120	Q*121-*22	
22	18	1500	120	Q*151-*22	
34	30	500	120	Q*51-*34	$109
34	30		240	Q*52-*34	
34	30	750	120	Q*71-*34	
34	30		240	Q*73-*34	
34	30	1000	120	Q*103-*34	
34	30		240	Q*103-*34	
34	30	1250	120	Q*123-*34	
34	30		240	Q*123-*34	
34	30	1500	120	Q*153-*34	
34	30		240	Q*153-*34	
34	30	2000	120	Q*201-*34	
34	30		240	Q*202-*34	
46	42	500	120	Q*51-*46	$128
46	42		240	Q*52-*46	
46	42	750	120	Q*71-*46	
46	42		240	Q*72-*46	
46	42	1000	120	Q*101-*46	
46	42		240	Q*102-*46	
46	42	1250	120	Q*121-*46	
46	42		240	Q*122-*46	
46	42	1500	120	Q*151-*46	
46	42		240	Q*152-*46	
46	42	2000	120	Q*201-*46	
46	42		240	Q*202-*46	
46	42	2500	240	Q*252-*46	
46	42	3000	240	Q*302-*46	

Q SERIES, QUARTZ INFRARED HEATING ELEMENTS					
OVERALL LENGTH	HOT ZONE	WATTS	VOLTS (See page 1)	MODEL NUMBERS	PRICE
58	54	500	120	Q*51-*58	$175
58	54		240	Q*52-*58	
58	54	750	120	Q*71-*58	
58	54		240	Q*72-*58	
58	54	1000	120	Q*101-*58	
58	54		240	Q*102-*58	
58	54	1250	120	Q*121-*58	
58	54		240	Q*122-*58	
58	54	1500	120	Q*151-*58	
58	54		240	Q*152-*58	
58	54	2000	120	Q*201-*58	
58	54		240	Q*202-*58	
58	54	2500	240	Q*252-*58	
58	54	3000	240	Q*302-*58	
70	66	1000	120	Q*101-*66	$213
70	66		240	Q*102-*66	
70	66	1250	120	Q*121-*66	
70	66		240	Q*122-*66	
70	66	1500	120	Q*151-*66	
70	66		240	Q*152-*66	
70	66	2000	120	Q*201-*66	
70	66		240	Q*202-*66	
70	66	2500	240	Q*252-*66	
70	66	3000	240	Q*302-*66	
70	66	3500	240	Q*352-*66	
70	66	4000	240	Q*402-*66	

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

*Specify terminal style. (RA,RB,RC,RE,ARE)
Refer to Radiant.pdf
-* Specify tube size (B=5/8", C=9/16")

INLINE HEATERS

TYTAN™ WATER HEATERS						
WATTS	VOLTS (See Pg. 2)	TITANIUM MODEL NUMBER	TITANIUM PRICE	316 STAINLESS STEEL MODEL NUMBER	316 STAINLESS STEEL PRICE	SHIP WT. LBS./(kg)
12000	240 480	TY-012-240-3-SC TY-012-480-3-SC	$15,038	TY-012-240-3-S TY-012-480-3-S	$16,666	300 (136.1)
18000	240 480	TY-018-240-3-SC TY-018-480-3-SC	$15,545	TY-018-240-3-S TY-018-480-3-S	$17,192	300 (136.1)
24000	240 480	TY-024-240-3-SC TY-024-480-3-SC	$16,426	TY-024-240-3-S TY-024-480-3-S	$17,615	300 (136.1)
36000	240	TY-036-240-3-SC	$19,904	TY-036-240-3-S	$19,312	338 (153.3)
36000	480	TY-036-480-3-SC	$16,784	TY-036-480-3-S	$16,072	338 (153.3)
48000	240	TY-048-240-3-SC	$24,589	TY-048-240-3-S	$24,182	338 (153.3)
48000	480	TY-048-480-3-SC	$17,677	TY-048-480-3-S	$16,986	338 (153.3)
72000	240	TY-072-240-3-SC	$35,842	TY-072-240-3-S	$35,251	350 (158.8)
72000	480	TY-072-480-3-SC	$28,212	TY-072-480-3-S	$27,303	350 (158.8)
96000	480	TY-096-480-3-SC	$35,305	TY-096-480-3-S	$33,948	570 (258.6)
120000	480	TY-120-480-3-SC	$37,268	TY-120-480-3-S	$35,266	580 (263.1)
144000	480	TY-144-480-3-SC	$43,505	TY-144-480-3-S	$43,352	590 (267.6)

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

INLINE CHEMICAL/SOLVENT HEATER

Safely heat process solvents through indirect contact instead of direct immersion. Call for custom pricing or send an email to Hpsales@process-technology.com

Frontier

Wattage	Length	
kW	Inch	mm
3-6	12.63	321
9-12	18.13	461
18-24	29.13	740
36	40.13	1019

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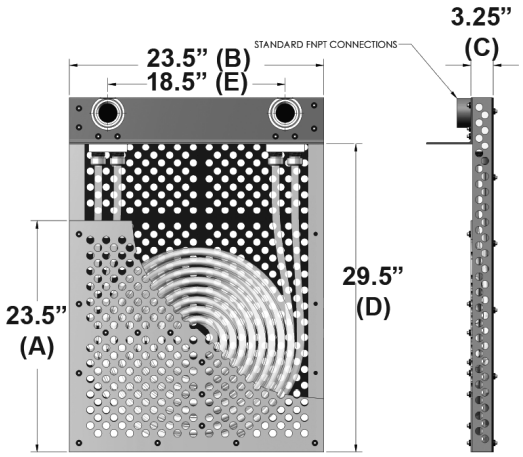
FLUOROPOLYMER HEATING, COOLING COILS & THERMAX² HEAT EXCHANGERS

Ordering Example

X4 - 24 - 24 - 30 - F - LP

- **X4** — No of tubes
- **24** — A
- **24** — B
- **30** — D
- **F** — Material F=FEP or P=PFA
- **LP** — Low pressure drop



X SERIES, FLUOROPOLYMER HEATING AND COOLING COILS								
SURFACE AREA SQ. FT.	CONNECTIONS IN.	SIZE A IN./(mm)	B IN./(mm)	C IN.(mm)	D IN.(mm)	1/4 PRO-COIL	PRICE	SHIP WT. LBS. / (kg)
4.5 *	1/2" FNPT	11½ (292)	11½ (292)	2 (51)	17½ (445)	X2-12-12-18-F	$2,320	11 (5)
4.5 *	1/2" FNPT	15½ (394)	15½ (394)	1½ (38)	21½ (546)	X2-16-16-22-F	$2,416	13 (5.9)
9.25 *	1/2" FNPT	15½ (394)	15½ (394)	2 (51)	21½ (546)	X4-16-16-22-F	$3,266	14 (6.4)
SURFACE AREA SQ. FT.	**CONNECTIONS IN.**	**ROUND**				**1/2 PRO-COIL**	**PRICE**	**SHIP WT. LBS. / (kg)**
6.00	1" FNPT	17½ (445)	17½ (445)	2 (51)	23½ (597)	X2-18-18-24-F-LP	$2,662	18 (8.2)
12.00	1" FNPT	17½ (445)	17½ (445)	3¼ (82.5)	23½ (597)	X4-18-18-24-F-LP	$3,466	22 (10)
18.00	1½ FNPT	17½ (445)	17½ (445)	4½ (114)	23½ (597)	X6-18-18-24-F-LP	$4,284	26 (11.8)
24.00	1½ FNPT	17½ (445)	17½ (445)	5¾ (146)	23½ (597)	X8-18-18-24-F-LP	$4,979	30 (13.6)
11.50	1" FNPT	23½ (597)	23½ (597)	2 (51)	29½ (749)	X2-24-24-30-F-LP	$3,395	24 (10.9)
23.00	1" FNPT	23½ (597)	23½ (597)	3¼ (82.5)	29½ (749)	X4-24-24-30-F-LP	$5,150	30 (13.6)
34.50	1½" FNPT	23½ (597)	23½ (597)	4½ (114)	29½ (749)	X6-24-24-30-F-LP	$6,135	36 (16.3)
46.50	1½" FNPT	23½ (597)	23½ (597)	5¾ (146)	29½ (749)	X8-24-24-30-F-LP	$7,815	42 (19.1)
*Mini Coils not recommended for cooling								

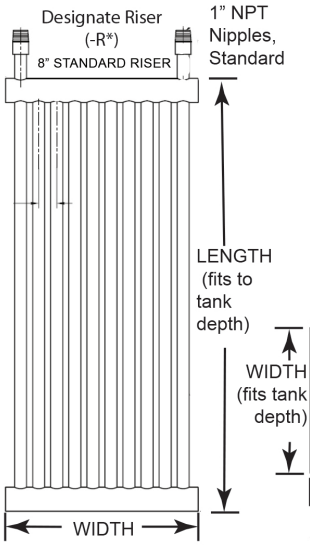
10 PSI minimum. 30 PSI maximum for FEP, 60 PSI maximum for PFA.

Consult factory for applications outside of this range. Consult factory for PFA pricing.

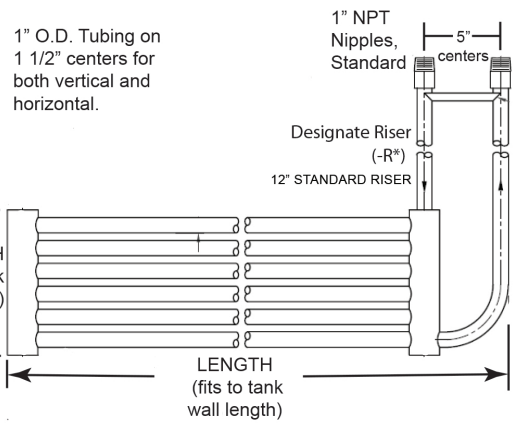
Vacuum breakers recommended (see chart on page 23).

G Series, Grid Coils

VERTICAL STYLE



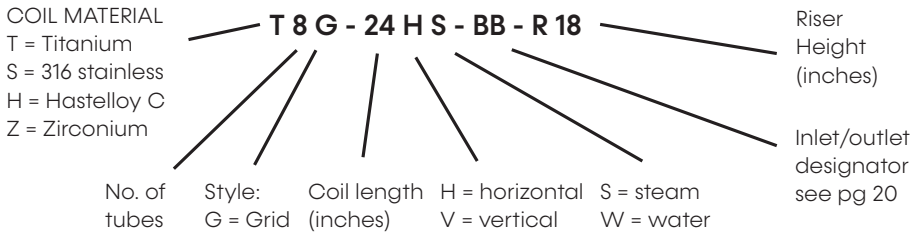
HORIZONTAL STYLE



G SERIES, METAL HEATING & COOLING GRID COILS

The following prices apply to horizontal as well as vertical style grid coils. Add (H) to end of model number for horizontal style and (V) for a vertical style. Reverse dimensions for the vertical style, (width becomes coil length and length becomes coil width. Add (S) to end of model number for steam usage and (W) for water usage. Shaded portions of charts indicate the item cannot ship UPS.

Square Feet of Surface Area for Horizontal and Vertical configurations shown below.



12" WIDTH (8 tubes)

VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
4.5	3.8	24 (610)	*8G-24**	$480	$834	12 (5.4)
5.6	4.8	30 (762)	*8G-30**	$525	$948	14 (6.4)
6.6	5.8	36 (914)	*8G-36**	$565	$1,033	16 (7.3)
8.7	7.9	48 (1219)	*8G-48**	$652	$1,209	18 (8.2)
10.8	10.0	60 (1524)	*8G-60**	$739	$1,387	23 (10.4)
12.9	12.1	72 (1829)	*8G-72**	$844	$1,563	28 (12.7)
15.0	14.2	84 (2134)	*8G-84**	$919	$1,734	31 (14.1)
17.1	16.3	96 (2438)	*8G-96**	$1,044	$1,908	34 (15.4)
19.2	18.4	108 (2743)	*8G-108**	$1,130	$2,085	38 (17.2)
21.3	20.5	120 (3048)	*8G-120**	$1,156	$2,193	41 (18.6)
23.4	22.6	132 (3353)	*8G-132**	$1,226	$2,364	46 (20.9)
25.5	24.7	144 (3658)	*8G-144**	$1,322	$2,534	49 (22.2)

18" WIDTH (12 tubes)

VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
6.8	5.6	24 (610)	*12G-24**	$670	$1,176	15 (6.8)
8.4	7.2	30 (762)	*12G-30**	$738	$1,221	18 (8.2)
9.9	8.8	36 (914)	*12G-36**	$796	$1,342	21 (9.5)
13.1	11.9	48 (1219)	*12G-48**	$930	$1,584	26 (11.8)
16.2	15.1	60 (1524)	*12G-60**	$1,059	$1,825	32 (14.5)
19.4	18.2	72 (1829)	*12G-72**	$1,191	$2,068	37 (16.8)
22.5	21.3	84 (2134)	*12G-84**	$1,255	$2,241	42 (19.1)
25.7	24.5	96 (2438)	*12G-96**	$1,443	$2,472	47 (21.3)
28.8	27.6	108 (2743)	*12G-108**	$1,571	$2,707	53 (24)
31.9	30.8	120 (3048)	*12G-120**	$1,689	$2,941	58 (26.3)
35.1	33.9	132 (3353)	*12G-132**	$1,818	$3,176	64 (29)
38.2	37.0	144 (3658)	*12G-144**	$1,937	$3,410	69 (31.3)

24" WIDTH (16 tubes)

VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
9.1	7.5	24 (610)	*16G-24**	$866	$1,555	19 (8.6)
11.2	9.6	30 (762)	*16G-30**	$948	$1,759	23 (10.4)
13.3	11.7	36 (914)	*16G-36**	$1,034	$1,932	28 (12.7)
17.5	15.9	48 (1219)	*16G-48**	$1,187	$2,282	33 (15)
21.6	20.1	60 (1524)	*16G-60**	$1,312	$2,557	40 (18.1)
25.8	24.3	72 (1829)	*16G-72**	$1,480	$2,897	47 (21.3)
30.0	28.4	84 (2134)	*16G-84**	$1,642	$3,236	54 (24.5)
34.2	32.6	96 (2438)	*16G-96**	$1,897	$3,576	61 (27.7)
38.4	36.8	108 (2743)	*16G-108**	$2,079	$3,916	69 (31.3)
42.6	41.0	120 (3048)	*16G-120**	$2,229	$4,258	76 (34.5)
46.8	45.2	132 (3353)	*16G-132**	$2,389	$4,598	82 (37.2)
51.0	49.4	144 (3658)	*16G-144**	$2,556	$4,935	88 (39.9)

30" WIDTH (20 tubes)

VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
11.3	9.4	24 (610)	*20G-24**	$1,054	$1,990	22 (10)
14.0	12.0	30 (762)	*20G-30**	$1,161	$2,234	28 (12.7)
16.6	14.6	36 (914)	*20G-36**	$1,271	$2,453	33 (15)
21.8	19.9	48 (1219)	*20G-48**	$1,417	$2,806	40 (18.1)
27.1	25.1	60 (1524)	*20G-60**	$1,622	$3,232	48 (21.8)
32.3	30.3	72 (1829)	*20G-72**	$1,824	$3,656	58 (26.3)
37.5	35.6	84 (2134)	*20G-84**	$2,030	$4,082	68 (30.8)
42.8	40.8	96 (2438)	*20G-96**	$2,347	$4,508	75 (34)
48.0	46.0	108 (2743)	*20G-108**	$2,553	$4,930	83 (37.7)
53.2	51.3	120 (3048)	*20G-120**	$2,756	$5,357	92 (41.7)
58.5	56.5	132 (3353)	*20G-132**	$2,962	$5,783	100 (45.4)
63.7	61.7	144 (3658)	*20G-144**	$3,168	$6,207	109 (49.4)

36" WIDTH (24 tubes)

VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
13.6	11.3	24 (610)	*24G-24**	$1,246	$2,343	28 (12.7)
16.8	14.4	30 (762)	*24G-30**	$1,371	$2,632	31 (14.1)
19.9	17.5	36 (914)	*24G-36**	$1,504	$2,895	38 (17.2)
26.2	23.8	48 (1219)	*24G-48**	$1,676	$3,321	48 (21.8)
32.5	30.1	60 (1524)	*24G-60**	$1,925	$3,830	57 (25.9)
38.7	36.4	72 (1829)	*24G-72**	$2,171	$4,339	68 (30.8)
45.0	42.7	84 (2134)	*24G-84**	$2,414	$4,850	79 (35.8)
51.3	49.0	96 (2438)	*24G-96**	$2,797	$5,362	89 (40.4)
57.6	55.2	108 (2743)	*24G-108**	$3,036	$5,872	99 (44.9)
63.9	61.5	120 (3048)	*24G-120**	$3,293	$6,378	109 (49.4)
70.2	67.8	132 (3353)	*24G-132**	$3,539	$6,890	119 (54)
76.4	74.1	144 (3658)	*24G-144**	$3,780	$7,400	129 (58.5)

42" WIDTH (28 tubes)

VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH IN. / (mm)	MODEL NUMBER	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
15.9	13.1	24 (610)	*28G-24**	$1,432	$2,633	32 (14.5)
19.5	16.8	30 (762)	*28G-30**	$1,583	$2,967	38 (17.2)
23.2	20.5	36 (914)	*28G-36**	$1,654	$3,176	45 (20.4)
30.5	27.8	48 (1219)	*28G-48**	$1,937	$3,771	56 (25.4)
37.9	35.1	60 (1524)	*28G-60**	$2,230	$4,365	68 (30.8)
45.2	42.5	72 (1829)	*28G-72**	$2,517	$4,961	80 (36.3)
52.5	49.8	84 (2134)	*28G-84**	$2,804	$5,557	92 (41.7)
59.9	57.1	96 (2438)	*28G-96**	$3,250	$6,150	103 (46.7)
67.2	64.4	108 (2743)	*28G-108**	$3,533	$6,748	115 (52.2)
74.5	71.8	120 (3048)	*28G-120**	$3,823	$7,341	126 (57.2)
81.9	79.1	132 (3353)	*28G-132**	$4,112	$7,937	140 (63.5)
89.2	86.4	144 (3658)	*28G-144**	$4,398	$8,531	150 (68)

Consult Customer Service for pricing on Hastelloy C and Zirconium. *See ordering information at top of the page.

** 18" and 24" tubes require a crate

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METAL HEATING & COOLING COILS

COIL MATERIAL
T = Titanium
S = 316 stainless
H = Hastelloy C
Z = Zirconium

S P 4 - 24 S - R 12 - BB

- Style: SP = Serpentine
- No. of passes
- Coil length (inches)
- S = Material
- Riser Height (inches)
- Inlet/outlet designator see pg 20

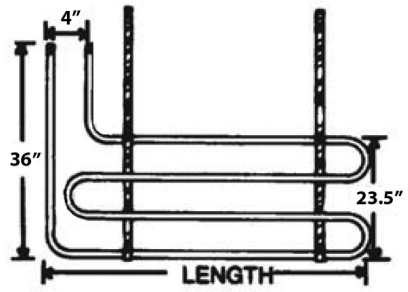
SP4 SERIES, COILS (coil depth 36")					
LENGTH IN. / (mm)	MODEL NUMBER	SQUARE FEET	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
24 (610)	SP4-24	2.75	$353	$658	10 (4.5)
36 (914)	SP4-36	3.75	$406	$877	12 (5.4)
48 (1219)	SP4-48	4.75	$460	$1,068	14 (6.4)
60 (1524)	SP4-60	5.75	$506	$1,251	16 (7.3)
78 (1981)	SP4-78	7.25	$587	$1,533	20 (9.1)
96 (2438)	SP4-96	8.75	$657	$1,815	24 (10.9)

SP6 SERIES, COILS (coil depth 48")					
LENGTH IN. / (mm)	MODEL NUMBER	SQUARE FEET	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
20 (508)	SP6-20	3.75	$440	$807	12 (5.4)
30 (762)	SP6-30	5.00	$498	$1,063	14 (6.4)
40 (1016)	SP6-40	6.25	$565	$1,295	17 (7.7)
50 (1270)	SP6-50	7.50	$626	$1,529	20 (9.1)
60 (1524)	SP6-60	8.75	$712	$1,760	24 (10.9)
70 (1778)	SP6-70	10.00	$754	$1,993	27 (12.2)

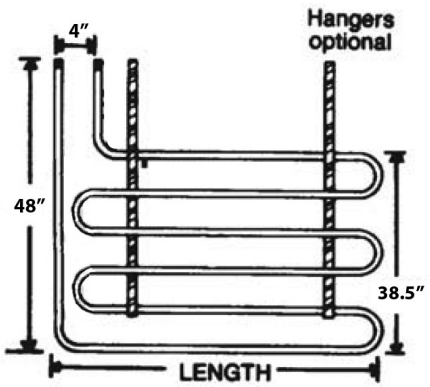
Longer lengths and bottom configurations available; consult factory for pricing on Hastelloy C® and Zirconium.

Shaded portion of charts indicate the item cannot ship UPS.

SP4 SERIES



SP6 SERIES



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

Standard = 1 inch. Consult factory on pricing for other Inlet/Outlet connections.

HANGERS		
MATERIAL	PER HANGER UP TO 48"	PER HANGER ADD PER FT
316 STAINLESS	$68	$5
TITANIUM	$96	$15

Each hanger is furnished with two tube clips and two bumpers. Select bumper length and material choice.

No. of Passes	Pass Depth Standard	Pass Depth Low Profile
2	8.5" (216 mm)	8.5" (216 mm)
4	23.5" (597 mm)	17" (432 mm)
6	38.5" (978 mm)	25.5" (648 mm)
8	53.5" (1359 mm)	34" (864 mm)
10	68.5" (1740 mm)	42.5" (1080 mm)

Standard tubing is 1 inch diameter on Serpentine coils.

METAL HEATING & COOLING COILS

UC SERIES, 12" COIL WIDTH					
LENGTH IN. / (mm)	MODEL NUMBER	SQUARE FEET	(S) 316 STAINLESS	(T) TITANIUM	SHIP WT. LBS. / (kg)
18 (457)	UC-18	0.75	$129	$296	3 (1.4)
24 (610)	UC-24	1.00	$146	$348	4 (1.8)
30 (762)	UC-30	1.25	$155	$405	5 (2.3)
36 (914)	UC-36	1.50	$167	$455	6 (2.7)
42 (1067)	UC-42	1.75	$180	$509	7 (3.2)
48 (1219)	UC-48	2.00	$199	$567	8 (3.6)
54 (1372)	UC-54	2.25	$218	$620	9 (4.1)
60 (1524)	UC-60	2.50	$225	$674	10 (4.5)

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

Standard tubing is 1 inch diameter on Ucoils.

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

COIL ACCESSORIES

S SERIES, BRASS SOLENOID VALVES			
SIZE (NPT)	CATALOG NUMBER	PRICE	SHIP WT. LBS./(kg)
½"	S-5-W	$203	3 (1.4)
½"	S-5-S	$282	3 (1.4)
¾"	S-3-W	$234	4 (1.8)
¾"	S-3-S	$327	4 (1.8)
1"	S-1-W	$413	6 (2.7)
1"	S-1-S	$613	6 (2.7)
1¼"	S-1-1/4-W	$501	8 (3.6)
1¼"	S-1-1/4-S	$620	8 (3.6)
1½"	S-1-1/2-W	$763	10 (4.5)
1½"	S-1-1/2-S	$800	10 (4.5)
2"	S-2-W	$1,349	12 (5.4)
2"	S-2-S	$1,531	12 (5.4)

5 PSI minimum pressure, 120V. W = Water service, S = Steam service.

VB SERIES, VACUUM BREAKERS			
SIZE (NPT)	CATALOG NUMBER	PRICE	SHIP WT. LBS./(kg)
½"	VB-5	$176	2 (.9)

Recommended for all fluoropolymer steam coil applications.

THERMOSTAT		
T-DLC12 -1-V*	120V	$478
T-DLC12 -2-V*	240V	$478
* V = Small 3" x 6" box		

ST SERIES, STRAINERS			
SIZE (NPT)	CATALOG NUMBER	PRICE	SHIP WT. LBS./(kg)
½"	ST5	$90	2 (.9)
¾"	ST3	$116	2 (.9)
1"	ST1	$139	3 (1.4)
1¼"	ST1-1/4	$176	4 (1.8)
1½"	ST1-1/2	$241	6 (2.7)
2"	ST2	$370	7 (3.2)
2½	ST2-1/2	$903	9 (4.1)

IX SERIES, COIL INSULATORS/ISOLATORS					
SIZE	LENGTH IN. / (mm)	MODEL NUMBER	316 S/S	TITANIUM	SHIP WT. LBS. / (kg)
½"	2 (51)	IX-5	$177	$209	1 (.45)
¾"	2 (51)	IX-3	$202	$244	1 (.45)
1"	2½ (64)	IX-1	$214	$258	1 (.45)
1¼	2½ (64)	IX-1-1/4	$228	$295	1 (.45)
1½	2½ (64)	IX-1-1/2	$260	$400	1 (.45)
2"	2½ (64)	IX-2	$460	$556	1 (.45)

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

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POWER SUPPLIES AND TEMPERATURE CONTROLS

Process Technology now offers Dynatronix power supplies!
Visit our website for information:

- DC
- Pulse
- Reverse Pulse
- Custom Power Solutions

DTX2400

MicroStar DC Precise

DTX SERIES: 2400 WATT POWER SUPPLIES					
MODEL	VOLTAGE (DC) (DC)	CURRENT AMPS	WATTS	VOLTMETER RESOLUTION	AMP METER RESOLUTION
DTX12-10	12	10	120	0.01 V	0.01 A
DTX12-50	12	50	600	0.01 V	0.01 A
DTX24-100	24	100	2400	0.01 V	0.01 A
DTX48-50	48	50	2400	0.01 V	0.01 A
DTX100-24	100	24	2400	0.01 V	0.01 A

Contact factory for pricing.

MICROSTAR DC PRECISE SERIES POWER SUPPLIES					
MODEL	VOLTAGE (DC)	CURRENT (AMPS)	VOLTMETER RESOLUTION	AMP METER RESOLUTION	AC INPUT
DC12-1 XR	0-12	0-1	*0.1/0.01V	0.0 - 99.9 MILLIAMPS (AVERAGE) IN 0.1 MILLIAMP INCREMENTS 100 - 1000 MILLIAMPS (AVERAGE) IN 1 MILLIAMP INCREMENTS	A, B
DC12-3 XR	0-12	0-3	*0.1/0.01V	0.0 - 299.9 MILLIAMPS (AVERAGE) IN 0.1 MILLIAMP INCREMENTS 300 - 3000 MILLIAMPS (AVERAGE) IN 1 MILLIAMP INCREMENTS	A, B

Contact factory for pricing.

AQUACULTURE TEMPERATURE CONTROLS

AQUACULTURE DIGITAL THERMOSTATS								
VOLTS	MAX. AMPS	MODEL NUMBER	LIST PRICE	SENSOR LENGTH (INCLUDED)	TEMP. RANGE	REPLACEMENT SENSOR P/N	LIST PRICE	SHIP WGT. Lbs./(kg)
120	15	T-DRA15E-1	**$374**	8' (2.4m)	-30°-220°F (-34°-	DRA-8L	**$101**	3 (1.5)
240	8	T-DRA8E-2	**$497**					

8' (2.4m) long vinyl sleeved sensor included with thermostat. 5.5' flexible cord with plug included. Longer sensor lengths available.

AQUACULTURE DIGITAL THERMOSTATS								
VOLTS	MAX. AMPS	MODEL NUMBER	LIST PRICE	SENSOR LENGTH (INCLUDED)	TEMP. RANGE	REPLACEMENT SENSOR P/N	LIST PRICE	SHIP WGT. Lbs./(kg)
120	15	T-DRA15-1	**$249**	8' (2.4m)	-30°-220°F (-34°-	DRA-8L	**$101**	3 (1.5)
240	8	T-DRA8-2						

8' (2.4m) long vinyl sleeved sensor included. Longer sensor lengths available.

AQUACULTURE C-DRA SERIES, DIGITAL COMBINATION CONTROLS						
VOLTS	MAX. AMPS	MODEL NUMBER (WITH TRANSFORMER)	LIST PRICE	REPLACEMENT SENSOR P/N	LIST PRICE	SHIP WGT. Lbs./(kg)
240	20	C-DRA202	**$973**	DRA-8L	**$101**	15 (6.8)
240	40	C-DRA402	**$1,023**			16 (7.3)

Control consists of gasketed plastic enclosure, thermostat, and 3 pole contactor and transformer. 8' (2.4m) long vinyl sleeved sensor included. Longer sensor lengths available.

AQUACULTURE B-DRA SERIES, DIGITAL CONTROLS						
VOLTS	MAX. AMPS	MODEL NUMBER (WITH TRANSFORMER)	LIST PRICE	REPLACEMENT SENSOR P/N	LIST PRICE	SHIP WGT. Lbs./(kg)
120	30	B-DRA301	**$871**	DRA-8L	**$101**	15 (6.8)
240	30	B-DRA302	**$871**	DRA-8L	**$101**	15 (6.8)

Control consists of gasketed plastic enclosure, thermostat, and 30 amp power relay. 8' (2.4m) long vinyl sleeved sensor included. Longer sensor lengths available.

SINGLE SET POINT DIGITAL TEMPERATURE CONTROLS

T-DE SERIES, 1/8 DIN DIGITAL THERMOSTATS WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	TEMP. RANGE	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
T-DE20	0 - 500°F (0 - 260°C)	85-240	20	$563	3 (1.4)

*T-DE20 has a 12 amp full load max if operating a heater in series with a thermal protector.

B-DE SERIES, DIGITAL COMBINATION CONTROLS SINGLE PHASE WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
B-DE301	120	30	$1,168	16 (7.3)
B-DE302	240	30	$1,168	16 (7.3)

RTD1000 replacement 10' (3m) fluoropolymer (FEP) covered sensor for T-DE20 control.....$105

C-DE SERIES, DIGITAL COMBINATION CONTROLS 1 OR 3 PHASE WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
C-DE202	240	20	$1,280	16 (7.3)
C-DE204	480	20	$1,280	16 (7.3)
C-DE402	240	40	$1,384	17 (7.7)
C-DE404	480	40	$1,384	17 (7.7)
C-DE802	240	80	$1,872	25 (11.3)
C-DE804	480	80	$1,872	25 (11.3)
C-DE1252	240	125	$2,383	33 (15)
C-DE1254	480	125	$2,383	33 (15)

T-DLC SERIES, DIGITAL THERMOSTATS WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	TEMP. RANGE	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
T-DLC16-1	-58 - 302°F	120	16*	$327	3 (1.4)
T-DLC16-2	-58 - 302°F	240	16*	$327	3 (1.4)

*T-DLC16 has a 12 amp full load max if operating a heater in series with a thermal protector.

C-DLC SERIES, DIGITAL COMBINATION CONTROLS 1 OR 3 PHASE WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
C-DLC202	240	20	$1,061	16 (7.3)
C-DLC204	480	20	$1,061	16 (7.3)
C-DLC402	240	40	$1,176	17 (7.7)
C-DLC404	480	40	$1,176	17 (7.7)
C-DLC802	240	80	$1,738	25 (11.3)
C-DLC804	480	80	$1,738	25 (11.3)
C-DLC1252	240	125	$2,292	33 (15)
C-DLC1254	480	125	$2,292	33 (15)

Resettable thermal protection: P2 add $109, P3 add $280.

Cannot be field calibrated.

Not suggested for NADCAP shops

B-DLC SERIES, DIGITAL COMBINATION CONTROLS SINGLE PHASE 1 OR 3 PHASE

MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
B-DLC301	120	30	$972	16 (7.3)
B-DLC302	240	30	$972	16 (7.3)

DLC-10L replacement 10' (3m) fluoropolymer sleeved thermistor.....$105

T-DE Thermostat

DSL Thermostat (next page)

DLC Thermostat

DQ Thermostat (next page)

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DUAL SET POINT DIGITIAL TEMPERATURE CONTROLS

T-DQ SERIES, 1/4 DIN DIGITAL THERMOSTATS
WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	TEMP. RANGE	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
T-DQ15D	0 - 500°F (0 - 260°C)	85-240	15*	$709	3 (1.4)

*T-DQ15D has a 12 amp full load max if operating a heater in series with a thermal protector.

B-DQ SERIES, DIGITAL COMBINATION CONTROLS SINGLE PHASE
WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
B-DQ301	120	30	$1,407	16 (7.3)
B-DQ302	240	30	$1,407	16 (7.3)

RTD1000 replacement 10' (3m) fluoropolymer (FEP) covered sensor for T-DQ15D control.....$105.

T-DSL SERIES, 1/16 DIN DIGITAL THERMOSTATS
WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	TEMP. RANGE	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
T-DSL3	-100 - 500°F (-73 - 260°C)	85-265	3	$860	2 (.9)

B-DSL SERIES, DIGITAL COMBINATION CONTROLS SINGLE PHASE
WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
B-DSL301	120	30	$1,577	16 (7.3)
B-DSL302	240	30	$1,577	16 (7.3)

RTD1000 replacement 10' (3m) fluoropolymer (FEP) covered sensor for T-DSL3 control.....$105.

C-DQ SERIES, DIGITAL COMBINATION CONTROLS 1 OR 3 PHASE
WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
C-DQ202	240	20	$1,494	16 (7.3)
C-DQ204	480	20	$1,494	16 (7.3)
C-DQ402	240	40	$1,598	17 (7.7)
C-DQ404	480	40	$1,598	17 (7.7)
C-DQ802	240	80	$2,065	25 (11.3)
C-DQ804	480	80	$2,065	25 (11.3)
C-DQ1252	240	125	$2,564	33 (15)
C-DQ1254	480	125	$2,564	33 (15)

Resettable thermal protection: P2 add $109, P3 add $280.

C-DSL SERIES, DIGITAL COMBINATION CONTROLS 1 OR 3 PHASE
WITH 10 FT. FLUOROPOLYMER (FEP) SLEEVE

MODEL NUMBER	VOLTS (See Pg. 2)	MAX. AMPS	PRICE	SHIP WT. LBS. / (kg)
C-DSL202	240	20	$1,690	16 (7.3)
C-DSL204	480	20	$1,690	16 (7.3)
C-DSL402	240	40	$1,808	17 (7.7)
C-DSL404	480	40	$1,808	17 (7.7)
C-DSL802	240	80	$2,341	25 (11.3)
C-DSL804	480	80	$2,341	25 (11.3)
C-DSL1252	240	125	$2,906	33 (15)
C-DSL1254	480	125	$2,906	33 (15)

Resettable thermal protection: P2 add $109, P3 add $280.

CONTROL ACCESSORIES

REPLACEMENT SENSORS GUIDE

CONTROL	REPLACEMENT SENSOR	LIST PRICE
DE	RTD1000	$105
DLC	DLC-10L	$105
DQ	RTD1000	$105
DSL	RTD1001	$105

DTS SERIES, DIGITAL TIMERS (pg C13)

MODEL NUMBER	VOLTS	MAX. AMPS	PRICE	SHIP WT. LBS./(kg)
DTS-1	120	16	$187	1 (.45)
DTS-1-B	120	16	$365	1 (.45)

The price adder to install a DTS-1 into a combo control is $70 plus the current base price. B = Digital control mounted in a 3.5" x 7" plastic box.

CUSTOM SENSORS AND LENGTHS

SENSOR	DESCRIPTION	LIST PRICE	SENSOR	DESCRIPTION	LIST PRICE
RTD100	10' (3m) 100 ohm, 3 wire RTD	$114	DLC-25L	25' (7.6m) 1000 ohm thirmistor	$178
D10-10L	10' (3m) J type thermocouple	$149	DLC-50L	50' (15.2m) 1000 ohm thirmistor	$234
RTD1000-25L	25' (7.6m) 1000 ohm, 2 wire RTD	$155	T-NR25-5L	5' (1.5m) capillary, NR mechanism only	$187
RTD1000-50L	50' (15.2m) 1000 ohm, 2 wire RTD	$218	T-NR25-12L	12' (3.5m) capillary, NR mechanism only	$292
RTD1000-F	10' (3m) 1000 ohm RTD with FEP sleeve	$190	T-NR25H-5L	5' (1.5m) high temp, NR mechanism only	$298

CONTROL OPTIONS*

		DESCRIPTION	LIST PRICE
P2-1/P2-2	120V/240V	P2 loose components. Manual reset, audible alarm and latching relay	$109
P2-1/P2D-2	120V/240V	P2 DIN RAIL loose components. Manual reset, audible alarm and latching relay	$109
P2 Price Adder		Combination control price adder	$109
P3-1/P3-2	120V/240V	P3 loose components. Manual reset, audible alarm, latching relay and preset circuit board	$280
P3-1/P3D-3	120V/240V	P3 DIN RAIL loose components. Manual reset, audible alarm, latching relay and preset thermostat circuit board	$280
P3 Price Adder		Combination control price adder	$280

*Specify 120V or 240V when ordering loose components.

BRANCH FUSING ENCLOSURES

Branch Fusing Features

- Branch fusing is best practice in the field when installing electric heaters and controls
- It provides a safe alternative to wiring multiple heaters into one contactor
- Our enclosures adhere to UL requirements (509) and NEC codes

Amperages: 0 up to 48FLA (per branch)
Voltages: up to 600 volts
Certifications: cULus

MAXIMUM NUMBER OF BRANCHES PER BOX						
	CC FUSES		HSJ 31-60A FUSES		HSJ 61-100A FUSES	
BOX	1-PHASE	3-PHASE	1-PHASE	3-PHASE	1-PHASE	3-PHASE
PROTEC	3	2	1	1		1
14" x 12"	5	4	2	2		1
16" x 14"	6	4	3	2		2
18" x 16"	7	5	3	2		2

CC FUSES ENCLOSURE LIST PRICE												
BOX	1 - PHASE, # OF BRANCHES							3 - PHASE, # OF BRANCHES				
PROTEC	1	2	3					1	2			
	$906	$1,097	$1,296					$1,010	$1,282			
14" x 12"	1	2	3	4	5			1	2	3	4	
	$1,202	$1,398	$1,593	$1,790	$1,984			$1,294	$1,566	$1,840	$2,112	
16" x 14"	1	2	3	4	5	6		1	2	3	4	
	$1,272	$1,467	$1,664	$1,858	$2,055	$2,250		$1,356	$1,629	$1,902	$2,175	
18" x 16"	1	2	3	4	5	6	7	1	2	3	4	5
	$1,447	$1,641	$1,836	$2,031	$2,227	$2,422	$2,617	$1,472	$1,746	$1,958	$2,290	$2,562
HSJ 31 - 60A FUSES ENCLOSURE LIST PRICE												
BOX	1 - PHASE, # OF BRANCHES							3 - PHASE, # OF BRANCHES				
PROTEC	1							1				
	$1,124							$1,331				
14" x 12"	1	2						1	2	3		
	$1,403	$1,815						$1,631	$2,228			
16" x 14"	1	2	3	4				1	2	3	4	
	$1,478	$1,892	$2,306	$2719				$1,790	$2,389	$2,988	$3,587	
18" x 16"	1	2	3	4	5			1	2	3	4	5
	$1,972	$1,975	$2,390	$2804	$3219			$1,835	$2,435	$3,037	$3,639	$4,240
HSJ 61 - 100A FUSES ENCLOSURE LIST PRICE												
BOX	1 - PHASE, # OF BRANCHES							3 - PHASE, # OF BRANCHES				
PROTEC								1				
								$2,045				
14" x 12"								1				
								$2,420				
16" x 14"								1	2			
								$2,488	$3,738			
18" x 16"								1	2			
								$2,584	$3,830			

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LIQUID LEVEL CONTROLS

LC SERIES, CONDUCTIVITY TYPE REMOTE LIQUID LEVEL CONTROL
PROBE AND ELECTRONIC ASSEMBLY
FIELD SELECTABLE VOLTAGE 120/240V

FIRST COMPONENT (CHOOSE PROBE LENGTH AND MATERIAL):

SINGLE LEVEL CONTROL			TWO LEVEL CONTROL			SHIPPING	
2 PROBES			3 PROBES			PROBE ONLY	PROBE WITH LCB
MODEL NUMBER	PROBE LENGTH (FIELD TRIM) IN. / (mm)	PRICE**	MODEL NUMBER	PROBE LENGTH (FIELD TRIM) IN. / (mm)	PRICE**	SHIP WT. LBS. / (kg)	(SEE BELOW FOR LCB INFO) SHIP WT. LBS. / (kg)
LP-2(*) 6	6 (152)	$230	LP-3(*) 6	6 (152)	$245	3 (1.4)	5 (2.3)
LP-2(*) 12	12 (305)	$254	LP-3(*) 12	12 (305)	$267	3 (1.4)	5 (2.3)
LP-2(*) 18	18 (457)	$287	LP-3(*) 18	18 (457)	$301	4 (1.8)	6 (2.7)
LP-2(*) 24	24 (610)	$299	LP-3(*) 24	24 (610)	$334	6 (2.7)	7 (3.2)
LP-2(*) 30	30 (762)	$343	LP-3(*) 30	30 (762)	$458	7 (3.2)	8 (3.6)
LP-2(*) 36	36 (914)	$365	LP-3(*) 36	36 (914)	$495	8 (3.6)	9 (4.1)
LP-2(*) 48	48 (1219)	$393	LP-3(*) 48	48 (1219)	$524	9 (4.1)	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 $31 per probe to prices listed. Three and four level units available, consult factory.

Model LCBA5- 2 probes
Model LCBE5- 3 probes
Level switch electronics (only) mounted in plastic enclosure
$330

Model LC
Replacement level switch circuit board (only)
$265

Model LCA5 (installed)
Level switch circuit board (only) installed in combination control - Add - LCA5 to model number
$288 control adder

NOTE: LC Series Liquid Level Control probes purchased before October 1st, 2017 will require an adapter fitting to connect a new probe assembly to an older control or a newer control to an old probe assembly. See below for the adapter part number and price.

Pre Oct 2017 Control with new LP.

PROBE MODEL NUMBER	ADAPTER ITEM NUMBER	PRICE
LP-2***	13573	$56
LP-3***	13592	$56
LP-4***	13599	$56
LP-5***	13600	$82
LP-6***		
*** Designates material and length.		

Pre Oct 2017 with new Control.

PROBE MODEL NUMBER	ADAPTER ITEM NUMBER	PRICE
LCBA5	13572	$56
LCBE5	13582	$56
2LCBJ5	13583	$56
3LCBR5	13591	$82

ESP SERIES, CAPACITIVE TYPE LIQUID LEVEL CONTROLS*

MODEL NUMBER	VOLTS	CONTACTS	MAX. LOAD	MAX. AMB. TEMP.	PRICE	SHIP WT. LBS. / (kg)
ESP	20-250	Field Selectable	500 MA	176° F (80° C)	$343	1 (.45)
*For DI WATER tanks up to 1" thick and non-metal						

HEATER ACCESSORIES

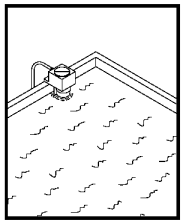
W SERIES, OVER THE SIDE THERMOWELLS								
MATERIALS OF WELL	DIAMETER	MODEL NO. 12" (305mm)	PRICE	MODEL NO. 24" (610mm)	PRICE	MODEL NO. 36" (915mm)	PRICE	SHIP WT. LBS. / (kg)
QUARTZ	½"	WQ12	$133	WQ24	$150	WQ36	$162	2 (.9)
304 STAINLESS	½"	WF12	$59	WF24	$69	WF36	$83	2 (.9)
316 STAINLESS	½"	WS12	$65	WS24	$83	WS36	$91	2 (.9)
TITANIUM	½"	WT12	$83	WT24	$106	WT36	$114	2 (.9)
FLUOROPOLYMER (PFA)	½"	WX12	$151	WX24	$156	WX36	$184	2 (.9)

W SERIES, THERMOWELLS WITH ½" NPT FITTING								
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	$104	WFT24	$113	WFT36	$121	2 (.9)
316 STAINLESS	½"	WST12	$121	WST24	$125	WST36	$133	2 (.9)
TITANIUM	½"	WTT12	$264	WTT24	$287	WTT36	$407	2 (.9)
FLUOROPOLYMER (PFA)	½"	WXT12	$270	WXT24	$289	WXT36	$306	2 (.9)

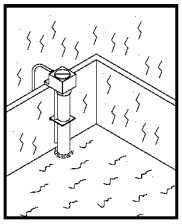
THERMAL OVERLOAD PROTECTION

THE PROTECTOR 1 SERIES

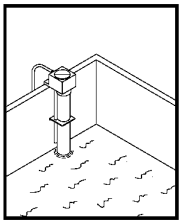
The Protector 1 overtemperature control system utilizes a heat sensitive fuse to detect overheat conditions. The protector, placed inside a thermowell, positioned in contact with the heater sheath, will cut power to the heater in the event of low liquid level.



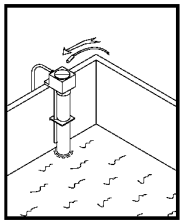
Immersion heater with Protector 1 working normally



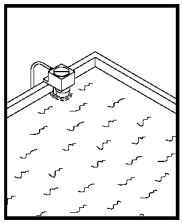
Process bath level drops due to tank leak or evaporation.



Protector 1 sensor detects elevating temperature and shuts off power to heater



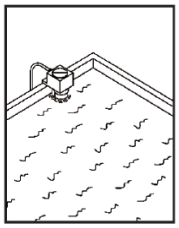
Replace Protector.



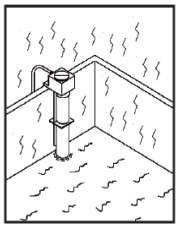
Restore the liquid level and resume operation.

THE PROTECTOR 2 AND 3 SERIES

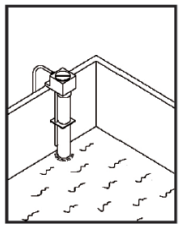
The Protector 2 and Protector 3 systems provide the same reliable overtemperature protection as the Protector 1; however, the control systems feature a heat sensing thermostat. If the liquid level drops and the heater reaches a preset overheat temperature, the thermostat cuts power to the heater and 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.



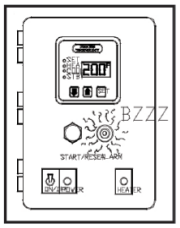
Immersion heater with Protector 2 working normally



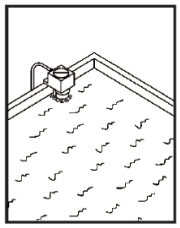
Process bath level drops due to tank leak or evaporation.



Protector 2's thermostat detects elevated temperature and shuts off power to heater



The alarm is activated



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

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THERMAL OVERLOAD PROTECTION

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)	$57
P4	6022-18-R	Metal	over the side	blue	180 to 230°F (82 - 110°C)	$57
P5	6023-18-R	Metal	over the side	red	230 to 300°F (110 - 150°C)	$57
P1	6021-85-R	Metal	L-shaped	white	up to 180°F (82°C)	$70
P4	6022-85-R	Metal	L-shaped	blue	180 to 230°F (82 - 110°C)	$70
P5	6023-85-R	Metal	L-shaped	red	230 to 300°F (110 - 150°C)	$70
P1	6032-26-R	Fluoropolymer	over the side	red	up to 190°F (88°C)	$57
P1	6032-48-R	Fluoropolymer	L-shaped	red	up to 190°F (88°C)	$70
P1	6032-26-R	Quartz	over the side	red	up to 180°F (82°C)	$57
P4	6033-26-R	Quartz/Fluoropolymer	over the side	blue	180 to 230°F (82 - 110°C)	$57

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)	$57
P6	4047-18-R	Metal	over the side	blue	180 to 230°F (82 - 110°C)	$57
P7	2805-18-R	Metal	over the side	red	230 to 300°F (110 - 150°C)	$57
P2	2804-85-R	Metal	L-shaped	white	up to 180°F (82°C)	$70
P6	4047-85-R	Metal	L-shaped	blue	180 to 230°F (82 - 110°C)	$70
P7	2805-85-R	Metal	L-shaped	red	230 to 300°F (110 - 150°C)	$70
P2	4575-26-R	Fluoropolymer	over the side	white	up to 190°F (88°C)	$57
P8	5163-120-R	Fluoropolymer	over the side	brown	190 to 210°F (88 - 99°C)	$116
P2	4575-48-R	Fluoropolymer	L-shaped	white	up to 190°F (88°C)	$70
P8	5163-120-R	Fluoropolymer	L-shaped	brown	190 to 210°F (88 - 99°C)	$116
P2	4575-26-R	Quartz	over the side	white	up to 180°F (82°C)	$57
P6	5580-48-R	Quartz/Fluoropolymer	over the side	blue	180 to 230°F (82 - 110°C)	$70

CONTROL OPTIONS	
P2 loose components. Manual reset, audible alarm and latching relay. Specify 120V or 240V.	$109
P2 loose components. Manual reset, audible alarm and latching relay. Specify 120V or 240V.	$109
P2 combination control price adder.	$109
P3 loose components. Manual reset, audible alarm, latching relay and preset thermostat circuit board. Specify 120V or 240V.	$280
P3 loose components. Manual reset, audible alarm, latching relay and preset thermostat circuit board. Specify 120V or 240V.	$280
P3 combination control price adder.	$280

WEBLINK: https://www.processtechnology.com/Protectors.html

IGNITION SOURCE

WARNING

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 https://www.processtechnology.com/terms.html as if fully set forth herein.

• RETURN/REPAIR INQUIRIES

Items ordered are only returnable/revocable if:

1. The item is defective.
2. The item received is not the ordered item.
3. The item differs in specifications from the item ordered.
4. Item is cancelled within 24 hours of placing an order or before production (non-stock items) whichever comes first. Fees may apply.

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 Safety Data Sheet (SDS)
- 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.

Returns Address:

Process Technology
7010 Lindsay Drive
Mentor, OH 44060

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CUSTOMER CARE AND INFORMATION:

888.891.0077 | NALTIC email: 411@NALTIC.com

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