



HC Series

PRODUCT DATA SHEET

Immersion Coil

Designed for the high demands of corrosive chemical heating or cooling

For use in most alkaline or acid solutions

Custom designed to your specifications

Multi-layer coils

L-shaped configurations for bottom heating applications



316 stainless steel, Zirconium, Hastelloy C and Titanium



100 PSI working pressure (steam or water)

PROCESS TECHNOLOGY

ISO 9001:2015
WITH DESIGN CERTIFIED

Features & Values

- Wide variety of materials available for use in heating or cooling applications for alkaline or acid solutions and rinse tanks. Check solution guide or consult with your chemical supplier for proper sheath material
- Heavy wall, 18 gauge metal tubing available in steel, 316 stainless steel and titanium
- 1" diameter tubing and 1" MNPT connection fittings standard
- Single point connections reduce the potential for leaks and simplify installation
- Tubing sizes: 3/8 inch diameter through 1 1/4 inch diameter
- Helical sizes: From 3 1/4 inch to 10 ft. diameter available based on tube diameter and wall thickness
- Wall thickness: .035 through .065 inches

Specifications

Options

- Mounting Hangers
- L-shaped configurations for bottom heating applications.
- Heavier gauge tubing or pipe
- Zirconium, Hastelloy C and other alloys available
- Vacuum Breakers
- Special riser sizes, fittings, lengths, and configurations
- Non-conductive isolator couplings

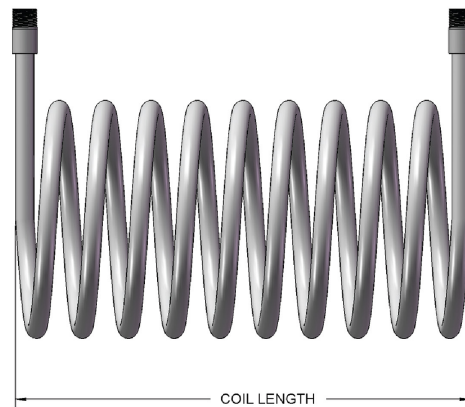
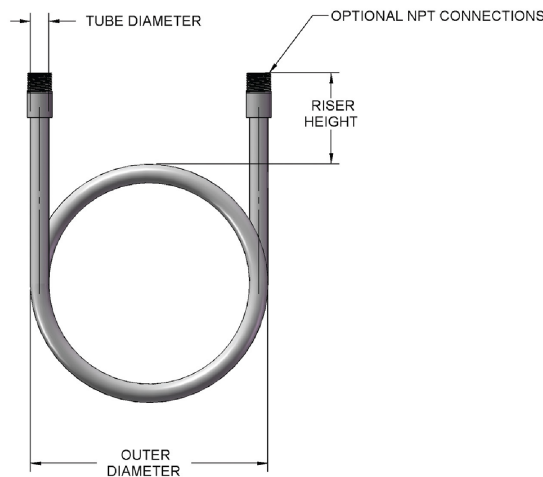
Safety Features

- Single point connections reduce the potential for leaks and simplify installation.

Pressure

100 PSI working pressure (steam or water)

Dimensions



Model Number Breakdown

Series	Exchange Area	Outside Diameter	Coiled Length	Inlet/Outlet	Riser Height
PHC = Steel	Specify in square feet Ex: 5 = 5 ft²	Specify in inches Ex: '-23 = 23"	Specify in inches Ex: '-24 = 24"	A = 3/4" MNPT	-R = Riser height Ex: '-R16 = 16" riser height
SHC = 316 Stainless Steel				B = 1" MNPT (standard)	
HHC = Hastelloy C®				C = 1-1/4" MNPT	
ZHC = Zirconium				D = 1-1/2" MNPT	
				F = 1/2" FNPT	
				G = 3/4" FNPT	
				H = 1" FNPT	
				J = 1/2" MNPT	





UC SERIES, U COILS						
EXCHANGE AREA (Sq. Ft.)	DEPTH In./ (mm)	WIDTH In./ (mm)	STEEL	316 SS	TITANIUM	SHIP WGT. Lbs./ (kg)
.75	18 (457)	12 (305)	UC18P	UC18S	UC18T	3 (1.4)
1.00	24 (610)	12 (305)	UC24P	UC24S	UC24T	4 (1.8)
1.25	30 (762)	12 (305)	UC30P	UC30S	UC30T	5 (2.3)
1.50	36 (914)	12 (305)	UC36P	UC36S	UC36T	6 (2.7)
1.75	42 (1067)	12 (305)	UC42P	UC42S	UC42T	7 (3.2)
2.00	48 (1219)	12 (305)	UC48P	UC48S	UC48T	8 (3.6)
2.25	54 (1372)	12 (305)	UC54P	UC54S	UC54T	9 (4.1)
2.50	60 (1524)	12 (305)	UC60P	UC60S	UC60T	10 (4.5)

1/2", 5/8", 3/4", and 1-1/4" tubing available, consult factory.

UC Series Features and Benefits

SUPERIOR CHEMICAL RESISTANCE:

- ◆ Wide variety of materials available for use in heating or cooling applications for alkaline or acid solutions and rinse tanks. Check solution guide or consult with your chemical supplier for proper sheath material.

RUGGED CONSTRUCTION:

- ◆ Heavy wall, 18-gauge metal tubing available in steel, 316 stainless steel, and titanium.
- ◆ 1" diameter tubing.
- ◆ 1" MNPT fittings standard.

LONG LASTING PERFORMANCE:

- ◆ One-inch thick, low profile design. Every inch of coil surface is active exchange area. Ideal for small tanks with low heat exchange requirements.

LEAK-FREE OPERATION:

- ◆ Single point connections reduce the potential for leaks and simplify installation. One-inch MNPT connections standard.

HIGH PRESSURE RATING:

- ◆ 100 PSI working pressure (steam or water).

SIZES:

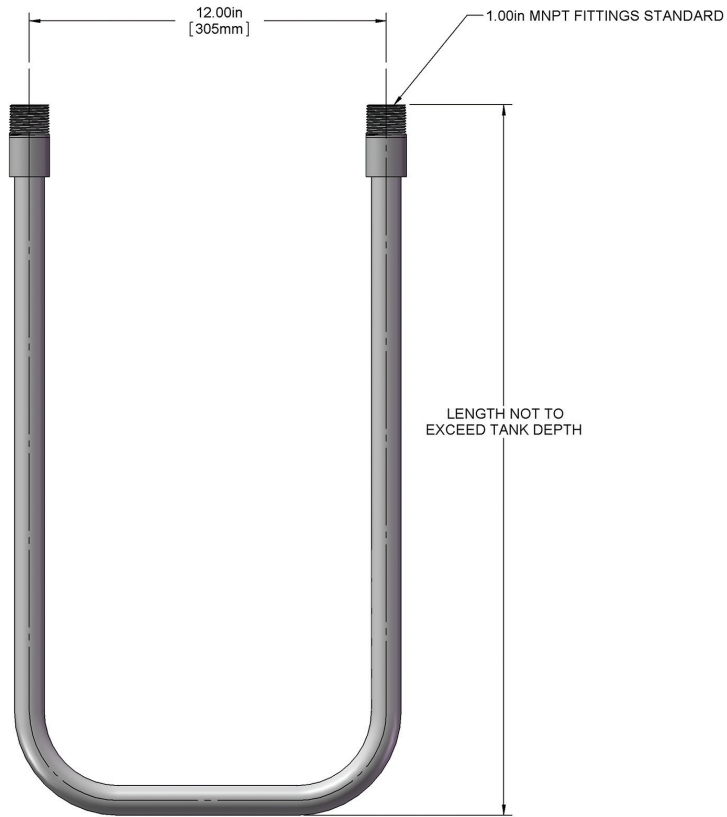
- ◆ .75 square ft. to 2.5 square ft. of exchange area standard.

OPTIONS AVAILABLE (consult factory):

- ◆ Special configurations and lengths.
- ◆ Heavier gauge tubing.
- ◆ Zirconium, Hastelloy C[®], and other alloys available.
- ◆ Fluoropolymer coatings for corrosion protection at solution/atmospheric interface.
- ◆ Non-conductive isolator couplings.
- ◆ L-shaped configurations for bottom heat applications.
- ◆ Higher pressure ratings available.

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

DIMENSIONS



METAL "U" COIL ORDERING INFORMATION

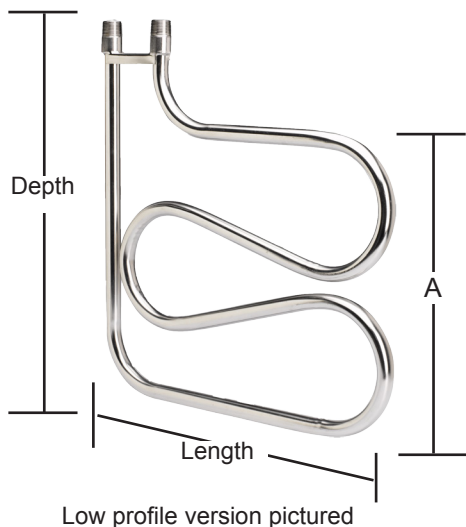
Series	Coil Length	Coil Width	Material	Inlet/Outlet	Misc.
	Length in inches (not to exceed tank length) Ex: -24 = 24"			A = 3/4" MNPT B = 1" MNPT (standard) C = 1-1/4" MNPT D = 1-1/2" MNPT F = 1/2" FNPT G = 3/4" FNPT H = 1" FNPT J = 1/2" MNPT	
	no designator = 12" (specify in inches) Ex: -13 = 13"				
	P = Steel S = 316 Stainless Steel T = Titanium H = Hastelloy C® Z = Zirconium				
	UC = "U" Coil				-BR = bottom style (specify riser height) Ex: -BR48 = bottom style with 48" riser height

ORDERING EXAMPLE:

UC-35T-BB-BR12

U-coil, 36" horizontal length, titanium, 1" inlet/outlet, bottom style with 12" riser.





SP SERIES, SERPENTINE COILS							
EXCHANGE AREA (Sq. Ft.)	LENGTH (In./mm)	DEPTH (In./mm)	NO. OF PASSES	STEEL	316 SS	TITANIUM	SHIP WGT. (Lbs./kg)
2.6	24 (610)	36 (914)	4	SP4-24P-R*	SP4-24S-R*	SP4-24T-R*	10 (4.5)
3.6	36 (914)	36 (914)	4	SP4-36P-R*	SP4-36S-R*	SP4-36T-R*	12 (5.4)
4.6	48 (1219)	36 (914)	4	SP4-48P-R*	SP4-48S-R*	SP4-48T-R*	14 (6.4)
5.7	60 (1524)	36 (914)	4	SP4-60P-R*	SP4-60S-R*	SP4-60T-R*	16 (7.3)
7.3	78 (1981)	36 (914)	4	SP4-78P-R*	SP4-78S-R*	SP4-78T-R*	20 (9.1)
8.8	96 (2438)	36 (914)	4	SP4-96P-R*	SP4-96S-R*	SP4-96T-R*	24 (10.9)
3.5	20 (508)	48 (1219)	6	SP6-20P-R*	SP6-20S-R*	SP6-20T-R*	12 (5.4)
4.8	30 (762)	48 (1219)	6	SP6-30P-R*	SP6-30S-R*	SP6-30T-R*	14 (6.4)
6.1	40 (1016)	48 (1219)	6	SP6-40P-R*	SP6-40S-R*	SP6-40T-R*	17 (7.7)
7.4	50 (1270)	48 (1219)	6	SP6-50P-R*	SP6-50S-R*	SP6-50T-R*	20 (9.1)
8.7	60 (1524)	48 (1219)	6	SP6-60P-R*	SP6-60S-R*	SP6-60T-R*	24 (10.9)
10	70 (1778)	48 (1219)	6	SP6-70P-R*	SP6-70S-R*	SP6-70T-R*	27 (12.2)

1/2", 5/8", and 3/4" tubing also available, consult factory.

SP Series Coils Features and Benefits

SUPERIOR CHEMICAL RESISTANCE:

- ◆ Wide variety of materials available for use in heating or cooling applications for alkaline or acid solutions and rinse tanks. Check solution guide or consult with your chemical supplier for proper sheath material.

RUGGED CONSTRUCTION:

- ◆ Heavy wall, 18 gauge metal tubing available in steel, stainless steel and titanium.
- ◆ 1" diameter tubing and 1" MNPT connection fittings standard.

OUTSTANDING PERFORMANCE:

- ◆ Low profile design for installation in tanks with limited space. (except zirconium material)
- ◆ Offers low cost for heating surface area.
- ◆ Every inch of coil surface is active exchange area.

LEAK-FREE OPERATION:

- ◆ Single point connections reduce the potential for leaks and simplify installation.

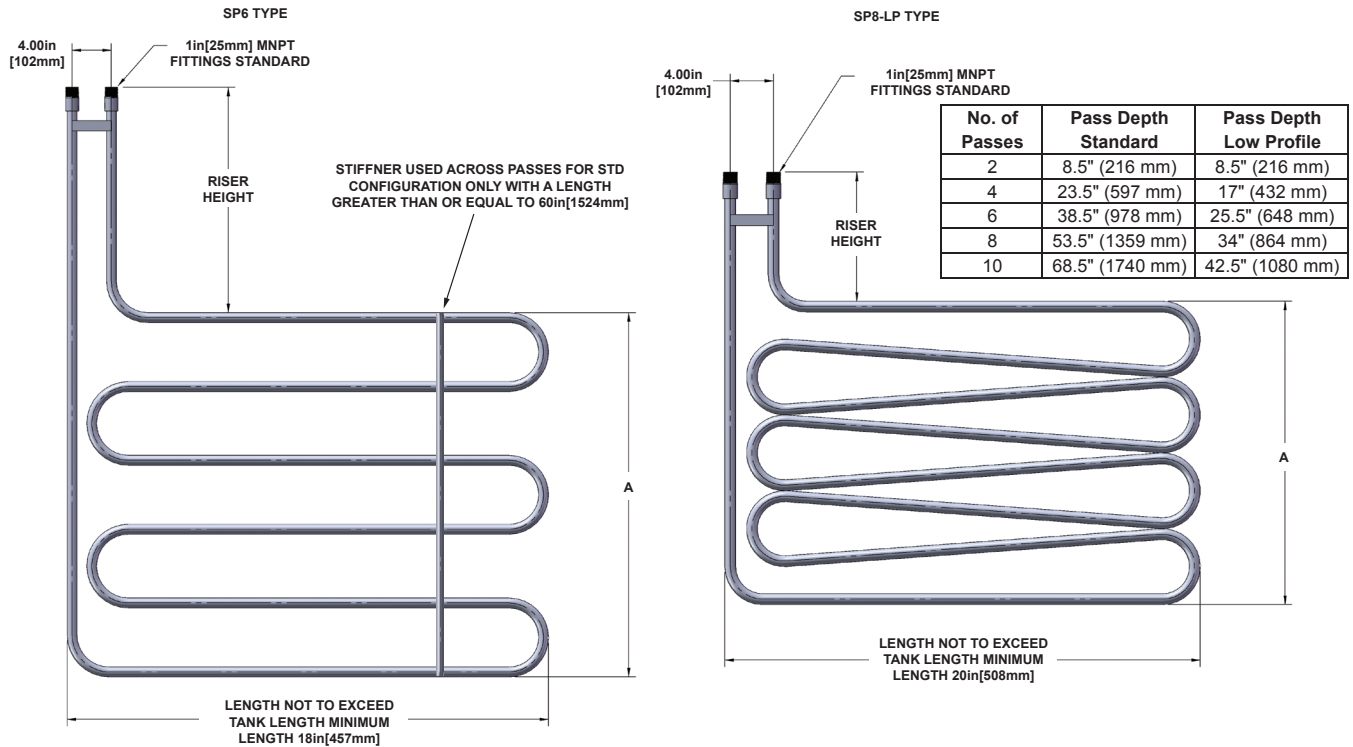
SIZES:

- ◆ 2.6 square ft. to 10 square ft. of exchange area standard for 4-pass and 6-pass designs.

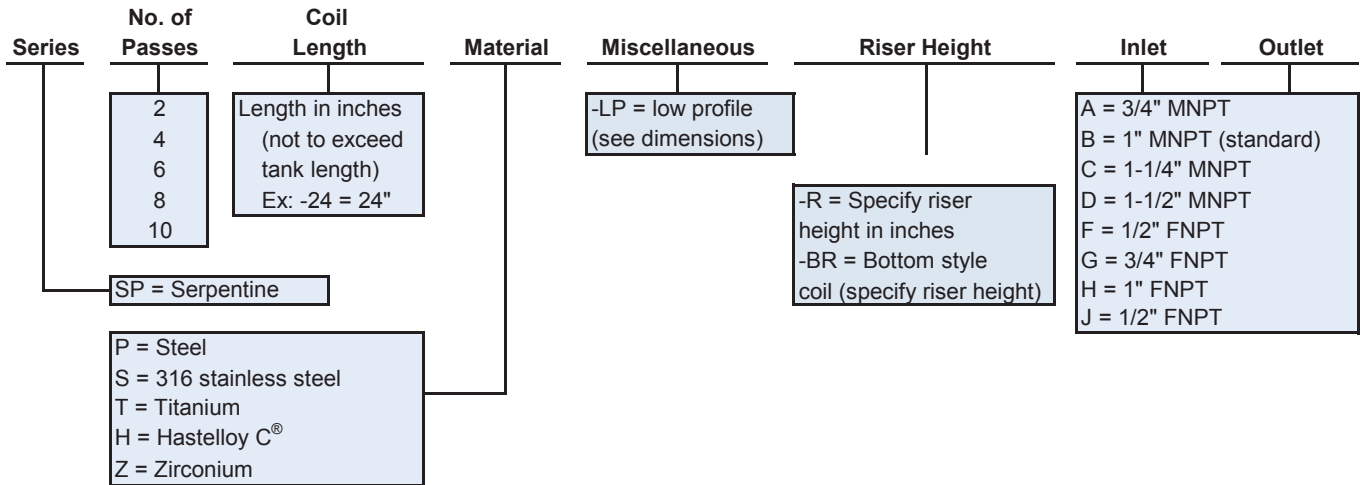
OPTIONS AVAILABLE (consult factory):

- ◆ Mounting hangers
- ◆ Special sizes in 2, 8 or 10-pass configurations.
- ◆ Heavier gauge tubing.
- ◆ Other riser lengths and configurations.
- ◆ Zirconium, Hastelloy C[®], and other alloys available.
- ◆ Fluoropolymer coatings for protection at solution/atmospheric interface.
- ◆ Non-conductive isolator couplings.
- ◆ High pressure ratings available (consult factory).

DIMENSIONS



METAL SERPENTINE COIL ORDERING INFORMATION



ORDERING EXAMPLE:

SP4-48T-LP-R22-BB

Serpentine coil, 4 passes, 48" length, titanium, low profile configuration, 22" risers, 1" inlet, 1" outlet.



G series

PRODUCT DATA SHEET

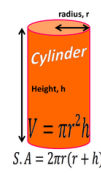
Immersion Coil

Designed for the high demands of corrosive chemical heating or cooling

- For use in most alkaline or acid solutions
- Vertical or horizontal configurations
- Every inch of coil surface is active exchange area
- 2-inch thick, low profile design



316 stainless steel, Zirconium, Hastelloy C and Titanium



4.6 square foot to 89.9 square foot of exchange area



100 PSI working pressure (steam or water)

G SERIES, GRID COILS														
12" WIDTH (8 TUBES)					18" WIDTH (12 TUBES)					24" WIDTH (16 TUBES)				
VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH In.(mm)	MODEL NUMBER	SHIP Lbs.(kg)	VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH In.(mm)	MODEL NUMBER	SHIP Lbs.(kg)	VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH In.(mm)	MODEL NUMBER	SHIP Lbs.(kg)
4.5	3.8	24 (610)	*8G-24	12 (5.4)	6.8	5.6	24 (610)	*12G-24	15 (6.8)	9.1	7.5	24 (610)	*16G-24	19 (8.6)
5.6	4.8	30 (762)	*8G-30	14 (6.4)	8.4	7.2	30 (762)	*12G-30	18 (8.2)	11.2	9.6	30 (762)	*16G-30	23 (10.4)
6.6	5.8	36 (914)	*8G-36	16 (7.3)	9.9	8.8	36 (914)	*12G-36	21 (9.5)	13.3	11.7	36 (914)	*16G-36	28 (12.7)
8.7	7.9	48 (1219)	*8G-48	18 (8.2)	13.1	11.9	48 (1219)	*12G-48	26 (11.8)	17.5	15.9	48 (1219)	*16G-48	33 (15)
10.8	10.0	60 (1524)	*8G-60	23 (10.4)	16.2	15.1	60 (1524)	*12G-60	32 (14.5)	21.6	20.1	60 (1524)	*16G-60	40 (18.1)
12.9	12.1	72 (1829)	*8G-72	28 (12.7)	19.4	18.2	72 (1829)	*12G-72	37 (16.8)	25.8	24.3	72 (1829)	*16G-72	47 (21.3)
15.0	14.2	84 (2134)	*8G-84	31 (14.1)	22.5	21.3	84 (2134)	*12G-84	42 (19.1)	30.0	28.4	84 (2134)	*16G-84	54 (24.5)
17.1	16.3	96 (2438)	*8G-96	34 (15.4)	25.7	24.5	96 (2438)	*12G-96	47 (21.3)	34.2	32.6	96 (2438)	*16G-96	61 (27.7)
19.2	18.4	108 (2743)	*8G-108	38 (17.2)	28.8	27.6	108 (2743)	*12G-108	53 (24)	38.4	36.8	108 (2743)	*16G-108	69 (31.3)
21.3	20.5	120 (3048)	*8G-120	41 (18.6)	31.9	30.8	120 (3048)	*12G-120	58 (26.3)	42.6	41.0	120 (3048)	*16G-120	76 (34.5)
23.4	22.6	132 (3353)	*8G-132	46 (20.9)	35.1	33.9	132 (3353)	*12G-132	64 (29)	46.8	45.2	132 (3353)	*16G-132	82 (37.2)
25.5	24.7	144 (3658)	*8G-144	49 (22.2)	38.2	37.0	144 (3658)	*12G-144	69 (31.3)	51.0	49.4	144 (3658)	*16G-144	88 (39.9)
30" WIDTH (20 TUBES)					36" WIDTH (24 TUBES)					42" WIDTH (28 TUBES)				
VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH In.(mm)	MODEL NUMBER	SHIP Lbs.(kg)	VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH In.(mm)	MODEL NUMBER	SHIP Lbs.(kg)	VERTICAL SQUARE FEET	HORIZONTAL SQUARE FEET	LENGTH In.(mm)	MODEL NUMBER	SHIP Lbs.(kg)
11.3	9.4	24 (610)	*20G-24	22 (10)	13.6	11.3	24 (610)	*24G-24	24 (11)	15.9	13.1	24 (610)	*28G-24	32 (14.5)
14.0	12.0	30 (762)	*20G-30	28 (12.7)	16.8	14.4	30 (762)	*24G-30	31 (14.1)	19.5	16.8	30 (762)	*28G-30	38 (17.2)
16.6	14.6	36 (914)	*20G-36	33 (15)	19.9	17.5	36 (914)	*24G-36	38 (17.2)	23.2	20.5	36 (914)	*28G-36	45 (20.4)
21.8	19.9	48 (1219)	*20G-48	40 (18.1)	26.2	23.8	48 (1219)	*24G-48	48 (21.8)	30.5	27.8	48 (1219)	*28G-48	56 (25.4)
27.1	25.1	60 (1524)	*20G-60	48 (21.8)	32.5	30.1	60 (1524)	*24G-60	57 (25.9)	37.9	35.1	60 (1524)	*28G-60	68 (30.8)
32.3	30.3	72 (1829)	*20G-72	56 (25.4)	38.7	36.4	72 (1829)	*24G-72	68 (30.8)	45.2	42.5	72 (1829)	*28G-72	80 (36.3)
37.5	35.6	84 (2134)	*20G-84	64 (29)	45.0	42.7	84 (2134)	*24G-84	79 (35.8)	52.5	49.8	84 (2134)	*28G-84	92 (41.7)
42.8	40.8	96 (2438)	*20G-96	72 (32.6)	51.3	49.0	96 (2438)	*24G-96	88 (40.4)	59.9	57.1	96 (2438)	*28G-96	103 (46.7)
48.0	46.0	108 (2743)	*20G-108	80 (36.3)	57.6	55.2	108 (2743)	*24G-108	99 (44.9)	67.2	64.4	108 (2743)	*28G-108	115 (52.2)
53.2	51.3	120 (3048)	*20G-120	92 (41.7)	63.9	61.5	120 (3048)	*24G-120	109 (49.4)	74.5	71.8	120 (3048)	*28G-120	126 (57.2)
58.5	56.5	132 (3353)	*20G-132	100 (45.4)	70.2	67.8	132 (3353)	*24G-132	119 (54)	81.9	79.1	132 (3353)	*28G-132	140 (63.5)
63.7	61.7	144 (3658)	*20G-144	109 (49.4)	76.4	74.1	144 (3658)	*24G-144	129 (58.5)	89.2	86.4	144 (3658)	*28G-144	150 (68)



G SERIES DATA SHEET

Features & Values

- Wide variety of materials available for use in heating or cooling applications for alkaline or acid solutions and rinse tanks. Check solution guide or consult with your chemical supplier for proper sheath material.
- Heavy wall, 20 gauge metal tubing available in steel, 316 stainless steel and titanium.
- 1" diameter tubing and 1" MNPT connection fittings standard.
- 4.6 square foot to 89.9 square foot of exchange area
- Single point connections reduce the potential for leaks and simplify installation.
- NOTE: Inlet and outlet connections must be sized to adequately handle water and steam volume requirements. Generally, larger inlet sizes are needed for grid coils larger than 33 sq. ft. (for steam) and 25 sq. ft. (for water).

Specifications

Safety Features

- Integral inlet and outlet manifolds for single point connections greatly reduce the potential for leaks and simplifies installation

Pressure

100 PSI working pressure (steam or water)

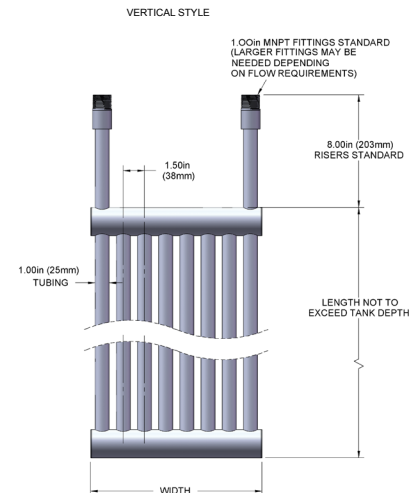
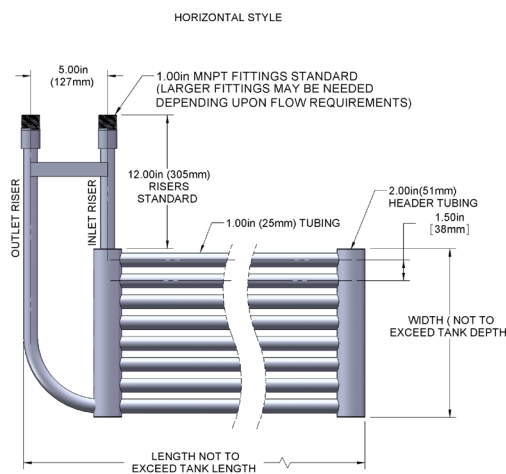
Options

- Mounting Hangers
- Vertical or horizontal configurations
- Heavier gauge tubing or pipe
- Zirconium, Hastelloy C and other alloys available
- Vacuum Breakers
- Special riser sizes, fittings, lengths, and configurations
- Non-conductive isolator couplings

Dimensions

CONNECTION GUIDELINES*		CONNECTION GUIDELINES*	
Water Flow Rate (per coil)	Coil Inlet/Outlet Size	Steam Flow Rate (per coil)	Coil Inlet Size
1-24 GPM	1 inch (B)	1-400 #/hr	1 inch (B)
25-35 GPM	1-1/4 inch (C)	401-525 #/hr	1-1/4 inch (C)
36-54 GPM	1-1/2 inch (D)	526-780 #/hr	1-1/2 inch (D)
55-80 GPM	2 inch (E)	781-1400 #/hr (outlet remains 1" NPT)	2 inch (E)

*consult factory



Model Number Breakdown

Series	No. of Tubes	Style Coil	Coil Length	Configuration	Service Conditions	Riser Height & Misc.	Inlet/Outlet Sizes
P = Steel	8	G = Grid style	Length in inches (not to exceed tank length) Ex: '-24 = 24"	H = Horizontal	S = Steam	no designator (horizontal style) = 12" riser (std)	A = 3/4" MNPT
S = 316 stainless steel	12			V = Vertical	W = Water	no designator (vertical style) = 8" riser (std)	B = 1" MNPT
T = Titanium	16			Note: for vertical style, coil length is a vertical dimension		-R = specify custom riser height	C = 1-1/4" MNPT
H = Hastelloy C®	20			-Ex: '-R30 = 30" riser height	D = 1-1/2" MNPT		
Z = Zirconium	24			-BR = bottom style coil, specify riser height	E = 2" MNPT		
	28					F = 1/2" FNPT	
						G = 3/4" FNPT	
						H = 1" FNPT	
						J = 1/2" FNPT	
						Ex: BA = 1" inlet/3/4" outlet	

