



MINIMARINE HEAT EXCHANGER

WATER TO WATER TITANIUM HEAT EXCHANGER FOR USE IN ALL AQUATIC CHILLING/HEATING APPLICATIONS



Aquatic (process) Flow (GPM)

BTU PERFORMANCE CHART - 7 GPM @ 10 PSID							
Δ T OF AQUATIC WATER & HYDRONIC LOOP							
	10	15	20	25	30	35	40
10	6 000	8 500	10 750	13 250	15 500	18 000	20 500
20	8 500	11 500	15 250	19 000	21 750	25 000	28 750
30	10 000	14 000	18 250	22 250	25 750	29 750	35 000
40	11 000	15 250	20 250	24 500	28 750	32 500	37 750
50	12 000	16 500	21 500	26 500	31 000	35 250	40 250
60	12 500	17 750	22 750	28 000	33 000	36 750	42 000
70	13 500	18 500	23 750	29 000	34 500	38 500	43 500
80	14 000	19 250	24 250	30 000	36 500	39 500	45 000
90	14 500	19 750	25 750	32 750	37 750	40 250	46 000

*BTU performance based on 7 GPM process flow @ 10 PSID

*Increase in flow, or delta-T will increase BTU output

*Max Aquatic side PSID at 90 GPM is 3 PSI

*Derating factors for 45F Propylene Glycol solutions: (20% PG - 0.96), (30% PG - 0.94), refer to PG tables for other oper temps & solutions.

Aquatic (process) Flow (GPM)

BTU PERFORMANCE CHART - 5 GPM @ 5 PSID							
Δ T OF AQUATIC WATER & HYDRONIC LOOP							
	10	15	20	25	30	35	40
10	6 750	9 000	11 250	13 875	17 250	18 750	19 500
20	10 125	13 500	16 125	20 250	24 375	26 625	29 250
30	12 000	15 750	20 250	24 000	29 250	32 250	35 625
40	13 500	17 625	22 875	27 375	32 250	36 750	40 125
50	14 625	19 500	24 750	30 375	35 625	39 750	44 625
60	15 750	21 000	26 625	32 250	37 875	42 000	48 000
70	16 500	22 125	27 750	34 500	39 750	44 250	51 375
80	16 500	23 625	29 250	36 000	41 250	45 750	54 375
90	17 250	24 375	30 750	37 500	42 375	47 250	57 000

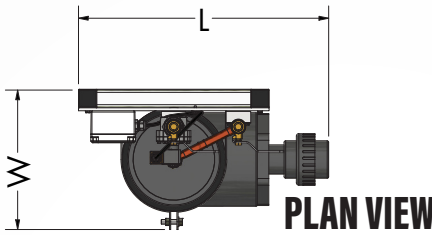
*BTU performance based on 5 GPM process flow @ 5 PSID

*Increase in flow, or delta-T will increase BTU output

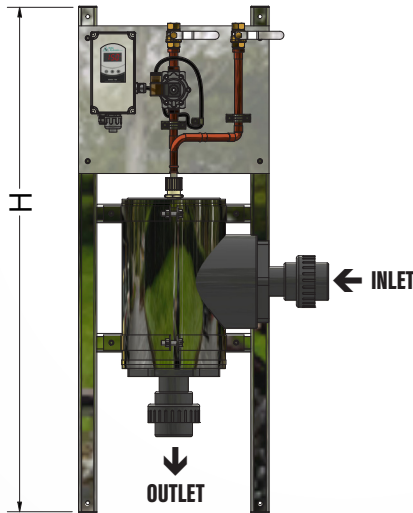
*Max Aquatic side PSID at 90 GPM is 3 PSI

*Derating factors for 45F Propylene Glycol solutions: (20% PG - 0.96), (30% PG - 0.94), refer to PG tables for other oper temps & solutions.

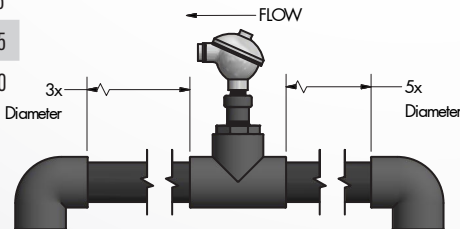
DIMENSIONS					
Aquatic Connection Size	Process Connection Size	Length (L)	Width (W)	Max. Height (H)	Weight (lbs)
1 1/2"	3/4"	20"	12"	41"	18



PLAN VIEW



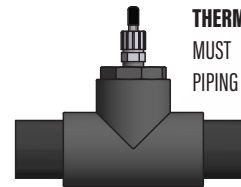
FRONT VIEW



FIELD INSTALLED FLOW SWITCH
OPTIONAL



OPTIONAL BASE FEET FOR FLOOR MOUNTING



THERMOWELL NOTE:
MUST BE INSTALLED ON INLET PIPING TO HEAT EXCHANGER.

THERMOWELL INCLUDED

FLOW SWITCH NOTE:

FLOW SWITCH MUST BE INSTALLED HORIZONTALLY ON INLET OF HEAT EXCHANGER, WITH MINIMUM STRAIGHT PIPE DISTANCES BEFORE AND AFTER AS SHOWN IN DRAWING. OPTIONAL FACTORY MOUNT & WIRE.

TEMPERATURE CONTROL
+/- 0.1°F ACCURACY

BRASS 3/4" BALL VALVES
PROCESS CONNECTIONS

2-WAY VALVE
PUMP OR SOLENOID
VALVE

0.50" CLOSED CELL
INSULATION WITH
GALVALUM JACKET

LIGHT WEIGHT 1.5"
FRAME MARINE
GRADE AL T6061

1 1/2" AQUATIC
CONNECTIONS

NOTES:

- Gr.2 TITANIUM TUBE HEAT EXCHANGER COIL
- INSULATED SCH40 PVC SHELL
- FRP SUPPORTS W/ 316SS HARDWARE
- TEMPERATURE CONTROLLER CAN BE SET +/- 0.1° F/C
- 120v CONTROLLER AND 2-WAY SOLENOID BALL-VALVE

OPTIONS:

- FACTORY MOUNTED & WIRED FLOW SWITCH
- SCH 80 CPVC SHELL CONSTRUCTION (Recommended for Heating)
- LIMIT SAFETY SOLENOID VALVE
- FLOOR MOUNT BASE FEET
- FLOW SWITCH ASSEMBLY
- HW/CW FLOW METER
- PUMP OR 2-WAY VALVE FLOW CONTROL



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