MultiTherm®
YOUR HEAT TRANSFER NEEDS ARE OUR ONLY CONCERN

Mechanical Design:
Design pressures up to 435 psig.
Maximum design temperature up to 450˚F.
Minimum design temperature to -310˚F.

Construction Codes:
Available codes include UL, CRN, and ASME Code Stamp.

Mounting:
Reduce mounting costs with optional threaded studs or integral mounting bracket.

Materials:
Stainless Steel 316L plates. Copper brazed material.

Connections:
From 1/2 inch to 4 inch. Standard connection options include NPT, SAE Flanged and Sweat. Custom connections available.

Capacity:
Up to 800 GPM and 350 Sq.ft. of surface area.

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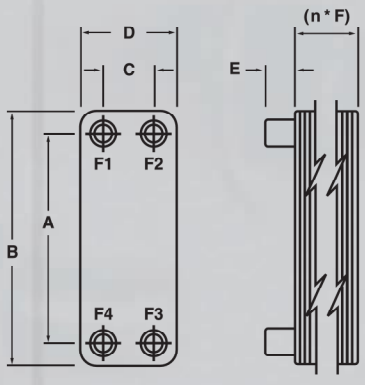
By using a brazing process we eliminated the need for gasketed or rolled joints commonly found in traditional exchangers. This allows for higher operating pressures and temperatures with no maintenance and no leaks. The corrugated plates easily handle highly viscous fluids, turbulating them for maximum efficiency. Corrosion-resistant materials ensure a long operating life.



STANDARD CONSTRUCTION	
Cover plates	ASTM 316L Stainless Steel
Channel plates	ASTM 316L Stainless Steel
Connections	ASTM 316L Stainless Steel M26 NPT, SAE Flanged and Sweat Connections available
Brazing material	Copper

TECHNICAL DATA	
Design Pressure	435 psi (30 bar)
Design temperature	450 F (224 C)

BUILD CERTIFICATIONS

UL, CRN, ASME Code Stamp option.

DIMENSIONS

Model	A		B		C		D		E		F		Connection	Volume		Surface Area		Max no. of plates
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm	in.	mm		Gal/chnl.	(L/chnl.)	Sq. Ft.	(Sq. M)	
MT100	6.77	172	8.2	208	1.65	42	3.1	79	0.95	24	0.081	2	3/4" MNPT	0.0076	0.029	0.126	0.012	50
MT110	9.84	250	12.2	310	1.97	50	4.4	112	0.95	24	0.094	2	1" MNPT	0.0159	0.060	0.281	0.026	150
MT111	9.84	250	12.2	310	1.97	50	4.4	112	0.95	24	0.094	2	1" MNPT	0.0159	0.060	0.28	0.026	150
MT112	9.84	250	12.2	310	1.97	50	4.4	112	0.95	24	0.094	2	1" MNPT	0.0159	0.060	0.281	0.026	150
MT115	18.35	466	20.7	526	1.97	50	4.4	112	0.95	24	0.094	2	1"MNPT	0.073	0.103	0.566	0.053	150
MT122	20.43	519	24.3	617	3.62	92	7.5	191	1.9	48	0.112	3	2" MNPT	0.0704	0.266	1.062	0.099	150

RADIANT FLOOR HEATING - SECTION SCHEDULE BASIS

Boiler Side: Water: 180°F Supply, 160°F Return
Radiant Floor Side: 120°F Supply, 100°F Return

Model	HEAT EXCHANGER BTU/Hr (max output)	BOILER SIDE Flow GPM	BOILER SIDE Pressure Drop PSI	RADIANT WATER SIDE Flow GPM	RADIANT WATER SIDE Pressure Drop PSI	B&G PUMP SELECTION†	PIPE SIZE
MT100-10	25,000	2.6	1.7	2.6	1.2	NRF-22	3/4"
MT100-10	30,000	3.1	2.4	3.0	1.6	NRF-22	3/4"
MT100-10	35,000	3.6	3.1	3.5	2.1	NRF-22	3/4"
MT100-10	40,000	4.1	4.0	4.0	2.8	NRF-36	3/4"
MT100-10	45,000	4.6	5.0	4.5	3.4	NRF-36	1"
MT100-10	50,000	5.2	6.1	5.0	4.2	NRF-36	1"
MT100-10	60,000	6.2	8.6	6.1	5.9	NRF-36	1"
MT100-20	75,000	7.7	3.0	7.6	2.6	NRF-36	1"
MT100-20	100,000	10.3	5.2	10.1	4.4	NRF-36	1-1/4"
MT100-20	125,000	12.9	7.9	12.6	6.8	NRF-36	1-1/4"
MT100-30	150,000	15.5	5.3	15.2	4.9	NRF-36	1-1/4"
MT100-30	175,000	18.0	7.1	17.7	6.5	PL-36	1-1/4"
MT100-40	200,000	20.6	5.8	20.2	5.5	PL-36	1-1/2"
MT100-40	225,000	23.2	7.3	22.7	6.9	PL-55	1-1/2"
MT111-20	250,000	25.8	3.3	25.2	3.0	PL-75	2"
MT111-20	275,000	28.3	4.0	27.8	3.6	PL-50	2"
MT111-20	300,000	30.9	4.7	30.3	4.2	PL-55	2"
MT111-20	350,000	36.1	6.3	35.3	5.6	PL-55	2"
MT111-30	400,000	51.2	4.8	40.4	4.6	601	2"
MT111-30	450,000	46.4	6.1	45.4	5.8	607	2"
MT111-30	500,000	51.5	7.4	50.5	7.1	608	2"
MT122-40	600,000	61.8	8.1	60.6	7.6	609	2-1/2"
MT122-50	700,000	72.1	7.1	70.7	6.8	612	2-1/2"
MT122-60	800,000	82.4	6.5	80.8	6.3	612	2-1/2"
MT122-80	900,000	92.7	4.9	90.9	4.8	611	3"
MT122-80	1,000,000	103	6.0	101.0	5.9	612	3"
MT122-80	1,100,000	113.3	7.2	111.1	7.1	625	3"
MT122-100	1,200,000	123.6	5.9	121.2	5.8	625	3"
MT122-100	1,350,000	139.1	7.5	136.3	7.4	619	3"

†Assumptions: 50 ft. of total equivalent length of pipe at sizes shown, 1/2 PEX, 0.8 gpm, longest radiant loop is 200 ft., 40 BTU/hr per ft²

SWIMMING POOL - SECTION SCHEDULE BASIS

Boiler Side: Water: 180°F Supply, 130°F Return
Pool Heating Side: 70°F Supply, 107°F Return

Model (3)	POOL SIZE GALLONS (1)	HEAT EXCHANGER BTU/Hr (max output)	BOILER SIDE Flow GPM	BOILER SIDE Pressure Drop PSI	POOL WATER FLOW (2) GPM	POOL SIDE PRESSURE DROP PSI
MT100-10	2,000	33,300	1.37	0.52	1.8	0.63
MT100-10	4,000	66,600	2.75	1.9	3.6	2.3
MT100-10	6,000	99,900	4.1	4.1	5.4	5
MT100-20	8,000	133,200	5.5	1.66	7.3	2.5
MT100-30	10,000	166,823	7.0	2.3	9.0	5.1
MT100-30	15,000	250,234	10.0	2.7	14.0	4.5
MT112-20	20,000	333,645	13.0	2.5	18.0	3.4
MT112-20	25,000	417,056	17.2	4.0	22.6	5.5
MT112-20	30,000	500,467	20.7	5.6	27.2	7.7
MT112-30	40,000	667,290	27.0	3.9	36.0	6.9
MT122-30	50,000	834,113	34.4	4.7	45.2	7.6
MT122-40	60,000	1,000,936	40.0	3.7	54.0	6.9
MT122-40	70,000	1,167,758	48.0	5.1	63.0	8.2
MT122-50	80,000	1,334,581	53.0	3.7	72.0	6.9
MT122-50	90,000	1,501,400	62.0	5.3	81.3	8.6
MT122-60	100,000	1,668,226	67.0	4.7	90.0	7.9
MT122-80	120,000	2,001,871	82.5	3.9	108.0	6.9
MT122-100	150,000	2,502,000	103.2	4.2	135.6	7.4

1) Provides approx. 2°F per hour heating with 180°F boiler to achieve 80°F pool temperature.
2) Pool water flow rate usually requires flow by pass from main pool circulation.
3) Chlorinated pool water can be corrosive to SS316L and Copper. Proper control of chlorine levels is required or alternate materials of construction should be considered.

DOMESTIC WATER - SECTION SCHEDULE BASIS

Boiler Side: Water: 180°F Supply, 130°F Return
Domestic Water Side: 50°F Supply, 140°F Return

Model	HEAT EXCHANGER BTU/Hr (max output)	BOILER SIDE Flow GPM	BOILER SIDE Pressure Drop PSI	DOMESTIC WATER SIDE Flow GPM	DOMESTIC WATER SIDE Pressure Drop PSI	B&G PUMP SELECTION†	PIPE SIZE
MT100-10	25,000	1.0	0.3	0.6	0.1	NBF-9U	3/4"
MT100-10	30,000	1.2	0.4	0.7	0.1	NBF-9U	3/4"
MT100-10	35,000	1.4	0.6	0.8	0.1	NBF-9U	3/4"
MT100-10	40,000	1.7	0.7	0.9	0.2	NBF-9U	3/4"
MT100-10	45,000	1.9	0.9	1.0	0.2	NBF-9U	3/4"
MT100-10	50,000	2.1	1.1	1.1	0.2	NBF-9U	3/4"
MT100-10	60,000	2.5	1.6	1.3	0.3	NBF-9U	3/4"
MT100-20	75,000	3.1	0.6	1.7	0.2	NBF-9U	3/4"
MT100-20	100,000	4.1	1.0	2.2	0.3	NBF-9U	3/4"
MT100-20	125,000	5.2	1.5	2.8	0.4	NBF-9U	3/4"
MT100-20	150,000	6.2	2.1	3.3	0.6	NBF-9U	3/4"
MT100-30	175,000	7.2	1.4	3.9	0.4	NBF-9U	3/4"
MT100-30	200,000	8.3	1.8	4.4	0.5	NBF-9U	1"
MT100-30	225,000	9.3	2.2	5.0	0.7	NBF-9U	1"
MT100-40	250,000	10.3	1.8	5.6	0.5	NBF-9U	1"
MT100-40	275,000	11.4	2.1	6.1	0.7	NBF-9U	1"
MT100-40	300,000	12.4	2.5	6.7	0.8	NBF-9U	1"
MT100-20	350,000	14.4	3.4	7.8	1.0	NBF-9U	1"
MT110-30	400,000	16.5	4.9	8.9	1.4	NBF-12	1-1/4"
MT111-30	450,000	18.6	6.2	10.0	1.8	NBF-12	1-1/4"
MT111-30	500,000	20.6	7.6	11.1	2.2	NBF-12	1-1/4"
MT110-40	600,000	24.8	6.2	13.3	2.0	NBF-22	1-1/4"
MT110-40	700,000	28.9	7.7	15.6	2.8	NBF-22	1-1/2"
MT110-50	800,000	33.0	6.9	17.8	2.4	NBF-33	1-1/2"
MT110-50	900,000	37.1	8.5	20.0	3.0	NBF-33	1-1/2"
MT122-30	1,000,000	41.3	5.9	22.2	2.2	NBF-33	1-1/2"
MT122-30	1,100,000	45.4	7.0	24.4	2.6	NBF-33	2"
MT122-30	1,200,000	49.5	8.0	26.7	3.2	NBF-36	2"
MT122-40	1,350,000	55.7	6.1	30.0	2.2	NBF-36	2"
MT122-40	1,500,000	61.9	7.5	33.3	2.8	NBF-45	2"
MT122-50	1,750,000	72.2	6.7	38.9	2.4	PL-45	2"
MT122-50	2,000,000	82.5	8.4	44.4	3.0	PL-50	2"
MT122-60	2,500,000	103.1	9.0	55.5	3.5	PL-75	2-1/2"

†Assumptions: 20 ft. of copper pipe with (6) 90 deg elbows

SNOW MELT - SECTION SCHEDULE BASIS

Boiler Side: Water: 180°F Supply, 160°F Return
Snow Melt Side: 40% PG 130°F Supply, 100°F Return

Model	HEAT EXCHANGER BTU/Hr (max output)	BOILER SIDE Flow GPM	BOILER SIDE Pressure Drop PSI	SNOW MELT WATER SIDE Flow GPM	SNOW MELT WATER SIDE Pressure Drop PSI	B&G PUMP SELECTION†	PIPE SIZE
MT100-10	25,000	2.6	1.7	1.8	0.7	NRF-36	3/4"
MT100-10	30,000	3.1	2.4	2.1	0.9	NRF-36	3/4"
MT100-10	35,000	3.6	3.2	2.5	1.3	NRF-36	3/4"
MT100-10	40,000	4.1	4.1	2.9	1.6	NRF-36	3/4"
MT100-10	45,000	4.6	5.1	3.2	2.1	NRF-36	3/4"
MT100-10	50,000	5.2	6.2	3.6	2.5	NRF-36	3/4"
MT100-10	60,000	6.2	8.7	4.3	3.5	NRF-36	1"
MT100-20	75,000	7.7	3.1	5.4	1.6	NRF-36	1"
MT100-20	100,000	10.3	5.4	7.1	2.7	NRF-36	1"
MT100-20	125,000	12.9	8.2	8.9	4.2	NRF-36	1-1/4"
MT100-20	150,000	15.5	5.8	10.7	3.1	NRF-36	1-1/4"
MT100-30	175,000	18.0	7.8	12.5	4.2	PL-36	1-1/4"
MT100-40	200,000	20.6	6.7	14.3	3.6	PL-36	1-1/4"
MT100-40	225,000	23.2	8.4	16.1	4.6	PL-55	1-1/4"
MT112-20	250,000	25.8	8.4	17.9	4.0	PL-55	1-1/2"
MT112-30	275,000	28.3	4.9	19.6	2.5	PL-55	1-1/2"
MT112-30	300,000	30.9	5.8	21.4	2.9	PL-55	1-1/2"
MT112-30	350,000	36.0	7.7	25.0	3.9	PL-55	1-1/2"
MT112-40	400,000	41.2	6.5	28.6	3.4	PL-55	2"
MT112-40	450,000	46.4	8.1	32.1	4.2	613	2"
MT112-50	500,000	51.5	7.6	35.7	4.0	613	2"
MT122-40	600,000	61.8	8.1	42.9	4.4	609	2"
MT122-50	700,000	72.1	7.1	50.0	3.9	614	2"
MT122-60	800,000	82.4	6.6	57.4	3.6	613	2-1/2"
MT122-60	900,000	92.7	7.7	64.3	4.8	614	2-1/2"
MT122-80	1,000,000	103.0	6.0	71.4	3.3	614	2-1/2"
MT122-80	1,100,000	113.3	7.3	78.6	4.1	616	2-1/2"
MT122-80	1,200,000	123.6	8.2	85.7	4.9	625	3"
MT122-100	1,350,000	139.1	7.4	96.4	4.1	625	3"

†Assumptions: 50 ft. of total equivalent length of pipe at sizes shown, 5/8 PEX, 2.0 gpm, longest radiant loop is 250 ft., 126 BTU/hr per ft²

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