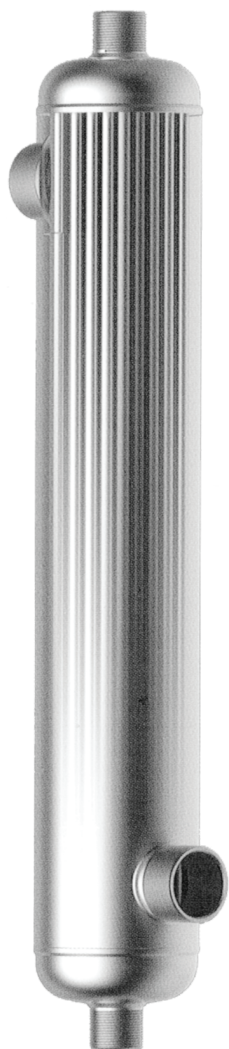


# MARINE ALLOY HEAT EXCHANGERS



## M-Line Marine Alloy Heat Exchangers Salt Water Pool Heaters

M-Line heat exchangers are a line of completely welded heat exchangers made entirely of a super austenitic marine alloy. Its compact structure is an integration of innovative material with detailed engineering for effective use with high fluid velocities and low pressure drops, designed specifically for salt water pool applications.

The versatility of this robust straight tube design covers a comprehensive range of capacities, suitable for all residential and commercial pool applications

### Applications

- Salt water pools, spas, hot tubs
- Transmission and engine coolers
- Marine Oil coolers
- Boiler sample coolers
- Waste water heat recovery

### Standard Materials:

- Nicrom 24
- Super austenitic (low carbon, high purity, nitrogen bearing) alloy

### Maximum Working Pressure:

Up to 150 PSI (1.03 MPa)

### Maximum Working Temperature:

Up to 406 °F (208°C)

Model	Nominal Capacity		Water Flow			
			Hot Water		Cold Water	
	kW	Btu/Hr	USGPM	PSIG	USGPM	PSIG
M 180	53	180000	7.93	0.40	55.48	1.10
M 300	88	300000	10.57	0.90	79.25	2.50
M 500	146	500000	14.53	1.30	95.10	3.20

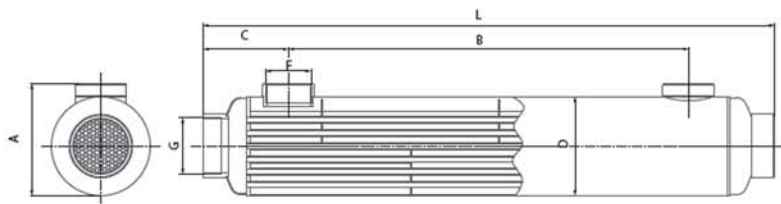
Nominal values are based on 60°C(40°F) temp. diff. between incoming heating and heated water

Model	Heat Transfer Area		Connection Shell	Connection Tubes
	m2	ft2	in	in
M 180	0.44	4.70	1-1/2"	1"
M 300	0.84	9.00	1-1/2"	1"
M 500	1.56	16.80	1-1/2"	1"

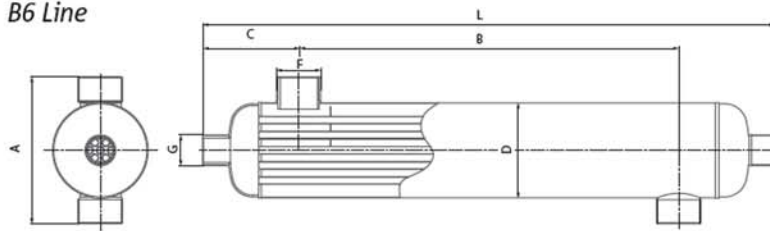


## Technical Product Specifications

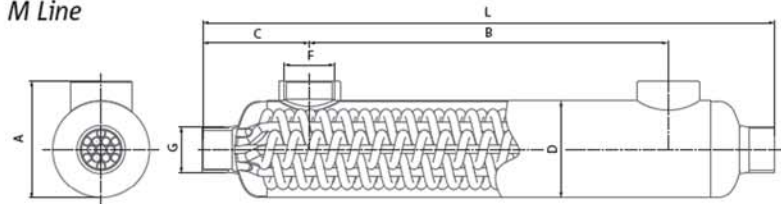
Heat Exchanger Model	Dimensions										Connections		Heat Transfer Area	
	L		A		B		C		Ø D		F	G		
	mm	in	mm	in	mm	in	mm	in	mm	in	Shell	Tubes	m <sup>2</sup>	sq ft
<b>B6-280</b>	400.0	15.7	94.5	3.7	240.0	9.4	80.0	3.1	80.0	3.1	1"	1½"	0.47	5.10
<b>B6-390</b>	373.0	14.7	117.6	4.6	193.0	7.6	90.0	3.5	103.6	4.1	1½"	2"	0.60	6.50
<b>B6-700</b>	622.0	24.5	117.6	4.6	442.0	17.4	90.0	3.5	103.6	4.1	1½"	2"	1.15	12.40
<b>B6-1200</b>	1075.0	42.3	117.6	4.6	895.0	35.2	90.0	3.5	103.6	4.1	1½"	2"	2.14	23.00
<b>M-180</b>	402.1	15.8	160.0	6.3	193.0	7.6	104.6	4.1	103.6	4.1	1½"	1"	0.44	4.70
<b>M-300</b>	651.1	25.6	160.0	6.3	442.0	17.4	104.6	4.1	103.6	4.1	1½"	1"	0.84	9.00
<b>M-500</b>	1 104.1	43.5	160.0	6.3	895.0	35.2	104.6	4.1	103.6	4.1	1½"	1"	1.56	16.80
<b>TW-100</b>	332.6	13.1	108.9	4.3	134.6	5.3	99.0	3.9	90.4	3.6	1½"	1¼"	0.21	2.24
<b>TW-200</b>	530.6	20.9	108.9	4.3	332.6	13.1	99.0	3.9	90.4	3.6	1½"	1¼"	0.38	4.15
<b>TW-300</b>	758.6	29.9	108.9	4.3	560.6	22.1	99.0	3.9	90.4	3.6	1½"	1¼"	0.58	6.26
<b>TW-400</b>	910.6	35.9	108.9	4.3	712.6	28.1	99.0	3.9	90.4	3.6	1½"	1¼"	0.72	7.71



**B6 Line**



**M Line**



**TW Line**

### Standard materials

**B6 LINE** Stainless Steel 316 L

**M LINE** Nicrom-24

**TW LINE** Titanium

### Maximum allowable working pressure

**B6 LINE** 10 bar / 150 PSIG

**M LINE** 10 bar / 150 PSIG

**TW LINE** 10 bar / 150 PSIG

### Maximum allowable working temperature

**B6 LINE** 208°C / 406°F

**M LINE** 208°C / 406°F

**TW LINE** 120°C / 248°F

Heat Exchanger Model	Nominal Capacity		Hot Water Side				Cold Water Side			
			flow		pressure drop		flow		pressure drop	
			kW	BTU/h	l/min	USGPM	kPa	PSI	l/min	USGPM
<b>B6-280</b>	82	280,000	125	33.0	22.4	3.3	250	66.1	14.8	2.2
<b>B6-390</b>	114	390,000	260	68.7	30.6	4.4	520	137.4	26.8	3.9
<b>B6-700</b>	205	700,000	215	56.8	14.3	2.1	430	113.6	25.0	3.6
<b>B6-1200</b>	352	1,200,000	238	62.9	25.2	3.7	476	125.8	47.0	6.8
<b>M-180</b>	53	180,000	100	26.4	7.0	1.0	150	39.6	8.7	1.3
<b>M-300</b>	88	300,000	105	27.7	8.2	1.2	157	41.6	8.6	1.3
<b>M-500</b>	146	500,000	120	31.7	11.4	1.7	180	47.6	11.8	1.7
<b>TW-100</b>	29	100,000	17	4.6	6.1	0.9	38	10.0	0.3	0.1
<b>TW-200</b>	57	200,000	28	7.5	26.7	3.9	61	16.0	1.4	0.2
<b>TW-300</b>	87	300,000	36	9.5	63.2	9.2	76	20.0	2.9	0.4
<b>TW-400</b>	113	400,000	35	9.1	71.7	10.4	265	70.0	40.7	5.9

Nominal Capacity Values are based on heating water 180°F (82.2°C) and return pool water 80°F (26.7°C)