

# TITANIUM HEAT EXCHANGERS



## TW-Line Heat Exchangers

Shell and Coil Heat Exchangers are made with pure Titanium, the innovative distinct TeeW Line design is a fusion of functionality and cutting edge thermal technology. The unique geometry of the Tee Line optimizes flow turbulence and increases the heat transfer coefficient, and along with its versatile assembly, provides the perfect solution for your diverse application.

## Applications

- Pools, spas, hot tubs
- In floor heating
- Driveway snowmelt
- Evaporators/Condensers
- Marine/saltwater application

## Standard Materials:

Titanium coils  
Titanium Shell

## Maximum Working Pressure:

Up to 232 PSI (16 bar) in Tubes  
Up to 232 PSI (16 bar) in Shell

## Maximum Working Temperature:

Up to 194 °F (120°C) Tube Side  
Up to 194 °F (60°C) Shell Side

Model	Nominal Capacity		Water Flow			
			Hot Water		Cold Water	
			kW	Btu/Hr	USGPM	PSIG
TW-100Ti	29	100,000	20	3.2	60	5.4
TW-200Ti	57	200,000	20	4.7	60	5.9
TW-300Ti	87	300,000	20	6.4	60	6.4
TW-400Ti	113	400,000	20	7.6	60	6.7

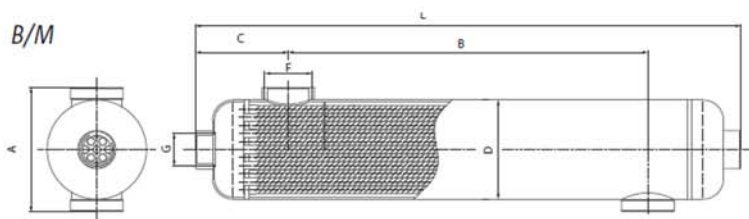
Nominal values are based on 60°C (40°F) temperature difference between incoming heating and heated water

Model	Heat Transfer Area		Connection	Connection
			Shell	Tubes
			m2	ft2
TW-100Ti	0.21	2.24	1½"	1¼"
TW-200Ti	0.38	4.15	1½"	1¼"
TW-300Ti	0.58	6.26	1½"	1¼"
TW-400Ti	0.72	7.71	1½"	1¼"

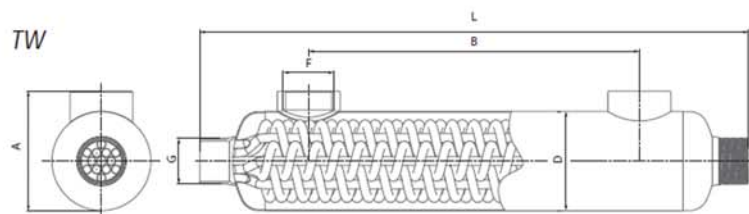


## Pool Heaters Technical Product Specifications

Heat Exchanger Model	Geometrical dimensions												Heat Transfer Area	
	L		A		B		C		Ø D		F	G	m <sup>2</sup>	sq ft
	mm	in	mm	in	mm	in	mm	in	mm	in				
<b>M 180</b>	402,1	15.8	160	6.3	193	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	6.3	442	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	6.3	859	33.8	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	-	-	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	-	-	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	-	-	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	-	-	90,4	3.6	1½"	1¼"	0,72	7.71



*Tube side hot/shell side cold*



*Tube side hot/shell side cold*

### Standard materials

**M LINE** Nicrom-24

**TW LINE** grade I titanium

### Maximum allowable working pressure

**M LINE** - shell/tube side 10 bar / 150 PSIG

**TW LINE** - shell/tube side 10 bar / 150 PSIG

### Maximum allowable working temperature

**M LINE** - shell/tube side 208°C / 406°F

**TW LINE** - shell/tube side 120°C / 248°F

## Nominal Performance

Heat Exchanger Model	Nominal Capacity		Hot Water Side				Cold Water Side			
			flow		pressure drop		flow		pressure drop	
	kW	BTU/h	l/min	USGPM	kPa	PSIG	l/min	USGPM	kPa	PSIG
<b>M 180</b>	53	180,000	150	40	24,0	3.5	227	60	26,2	3.8
<b>M 300</b>	88	300,000	150	40	25,5	3.7	227	60	33,1	4.8
<b>M 500</b>	146	500,000	150	40	27,0	3.9	227	60	24,8	3.6
<b>TW 100</b>	29	100,000	75	20	22,3	3.2	227	60	37,2	5.4
<b>TW 200</b>	57	200,000	75	20	32,3	4.7	227	60	40,5	5.9
<b>TW 300</b>	87	300,000	75	20	44,3	6.4	227	60	44,1	6.4
<b>TW 400</b>	113	400,000	75	20	52,7	7.6	227	60	46,2	6.7

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