

PRODUCT PROFILE

FG160-5107-5

Swimming Pool Heat Exchanger

Introduction

The Bowman FG160-5107-5 is an efficient shell and tube swimming pool heat exchanger which is suitable for use with either boiler heated hot water, or renewable energy heating systems, such as heat pumps or solar collectors. The cast end covers are finished in 'C' coat, an advanced technology coating, which is highly corrosion resistant and the unit is available with either a titanium, cupro-nickel or stainless steel tube core.

Typical Heat Transfer

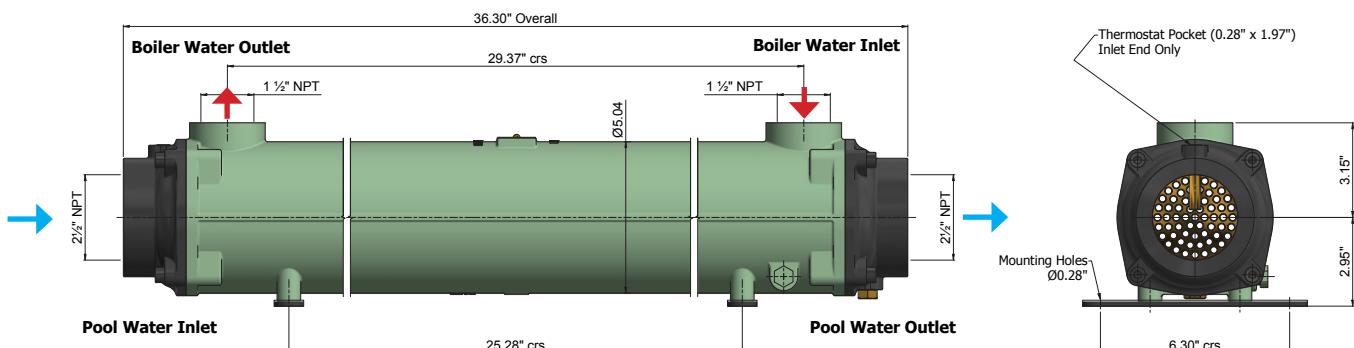
Boiler heating - 1,200,000 Btu/h
Renewable energy - 512,000 Btu/h

Product Benefits

Proven – heats pools fast, reducing energy costs
Easy to install – 2½" NPT threaded end covers with thermostat pocket
Durability – salt water and mineral rich fresh water compatible
Simple to maintain – easy disassembly for routine maintenance
Titanium models – full 10 year warranty on titanium materials



Specification



All dimensions in inches

Type	Tube Material	Typical Pool Capacity		Maximum Pool Water Flow	Maximum Hot Water Temp	Max. Operating Pressure Pool Water	Max. Operating Pressure Hot Water	Weight
		ft ³	gal					
FG160-5107-5S*	Stainless Steel	11,000	82,000	180.0	230	87	87	64
FG160-5107-5T	Titanium	11,000	82,000	180.0	230	87	87	55

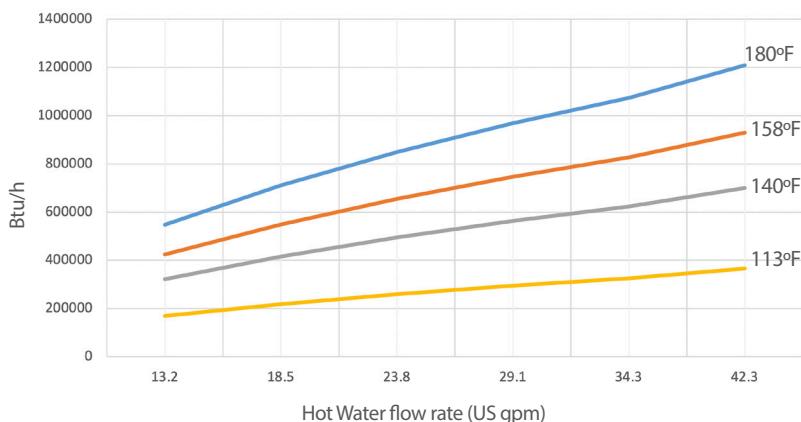
*Not suitable for use on pools fitted with salt water chlorinators or salt water pools.

Water Flow

As the graphs and table below illustrate, providing the right water flow volume is vital to the performance of the heat exchanger. If the flow rate of either the hot water supply, or the pool water circuit is too low, the heat exchanger will not perform at its designed efficiency and will be unable to transfer all the available heat energy in to the pool water.

For more information please visit: <https://ej-bowman.com/knowledge-centre/why-doesn-t-my-pool-heat-up-faster/>

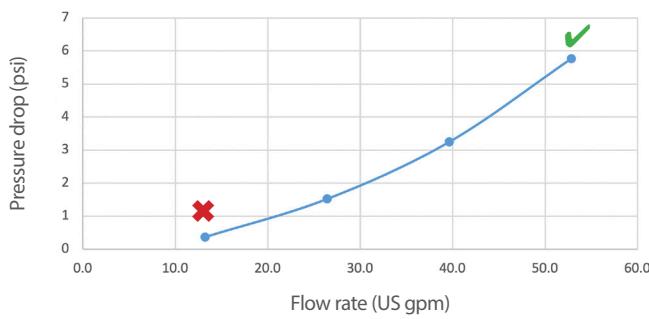
Heat Transfer



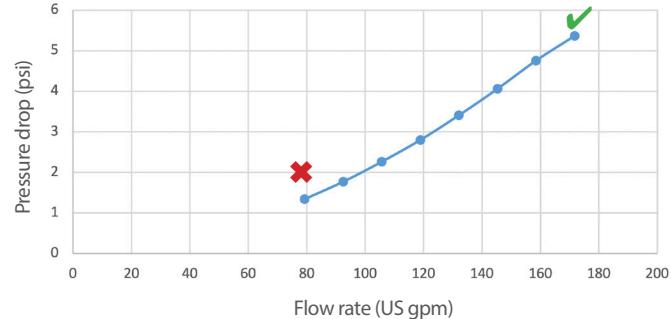
Btu/h Heat Transfer - FG160-5107-5
Pool water flow 180 US gpm at 82°F

Hot Water (US GPM)	Temperature & Heat Transfer			
	180°F Btu/h	158°F Btu/h	140°F Btu/h	113°F Btu/h
13.2	548300	424800	322100	169600
18.5	710700	549400	415600	218000
23.8	849300	655100	495100	259300
29.1	968700	746600	563700	294800
34.3	1073500	826800	623700	325500
42.3	1208900	929800	700900	365400

Pressure Drop Hot Water (Shell Side)



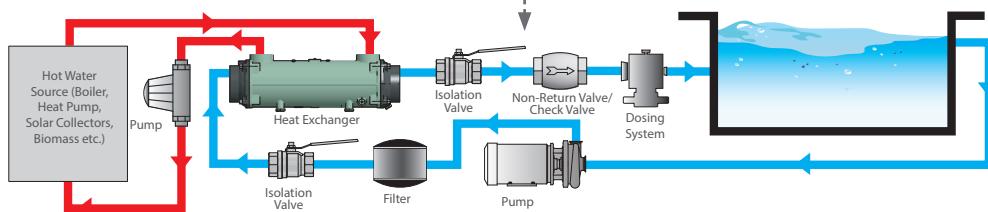
Pressure Drop Pool Water (Tube Side)



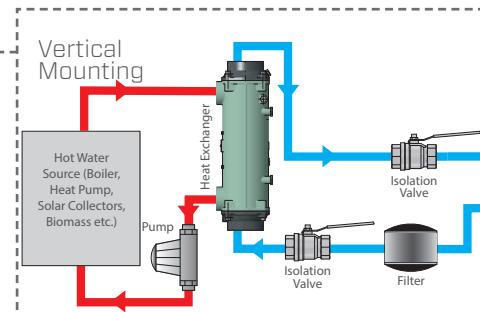
✓ Optimum heat transfer performance ✗ Reduced heat transfer performance

Installation

Horizontal Mounting



If an automatic dosing system is added, it must be installed after the heat exchanger on the return to the pool.



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