

PRODUCT PROFILE

FG100-5107-2

Swimming Pool Heat Exchanger

Introduction

The Bowman FG100-5107-2 is an efficient shell and tube heat exchanger which is suitable for swimming pools up to 9,600ft³, via a boiler heat source. 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

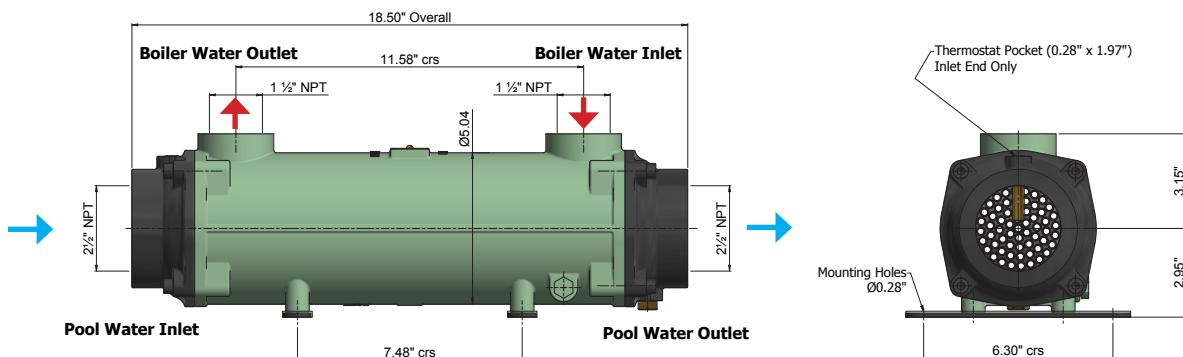
Boiler heating – 580,000 Btu/h



Product Benefits

- Proven** – heats pools fast, reducing energy costs
- Easy to install** – 2 1/2" 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					
FG100-5107-2C	Cupro-nickel	8,000	60,000	127.0	230	87	87	35
FG100-5107-2S*	Stainless Steel	9,600	72,000	145.0	230	87	87	35
FG100-5107-2T	Titanium	9,600	72,000	145.0	230	87	87	31

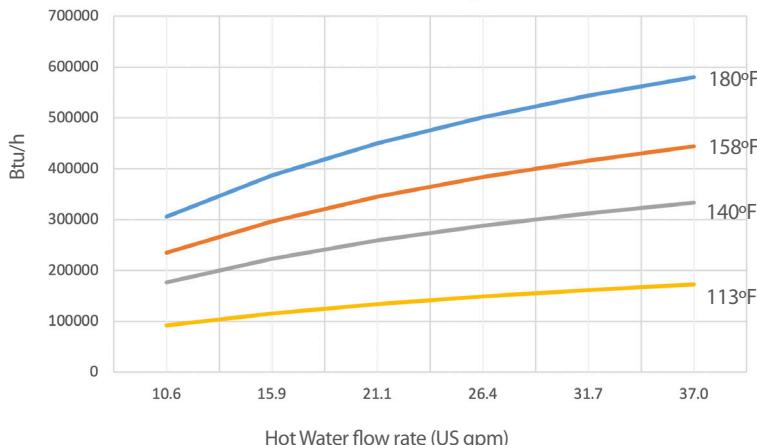
*Not suitable for use on pools fitted with salt water chlorinators or salt water pools.

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/>

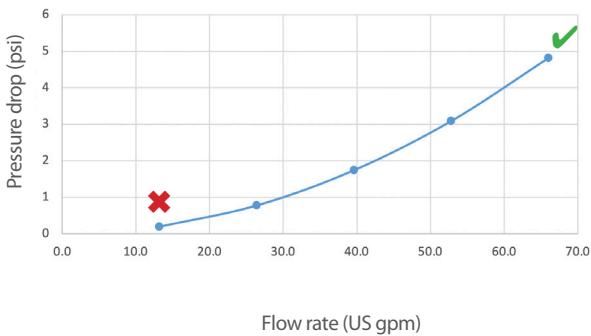
Heat Transfer



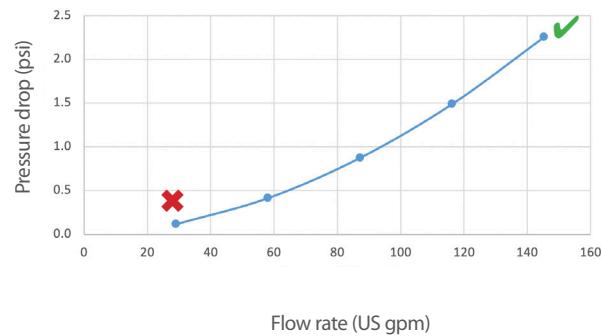
Btu/h Heat Transfer - FG100-5107-2
Pool water flow 127 US gpm at 82°F

Hot Water	Temperature & Heat Transfer			
	180°F (Btu/h)	158°F (Btu/h)	140°F (Btu/h)	113°F (Btu/h)
Flow rate (US GPM)				
10.6	305700	234800	176400	91800
15.9	387300	296900	223200	115700
21.1	450100	345000	259000	134100
26.4	501200	383900	288300	149100
31.7	543600	416300	312600	161700
37.0	580100	444300	333400	172700

Pressure Drop Hot Water (Shell Side)

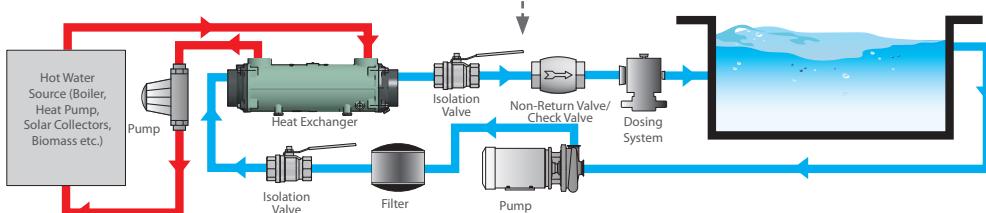


Pressure Drop Pool Water (Tube Side)

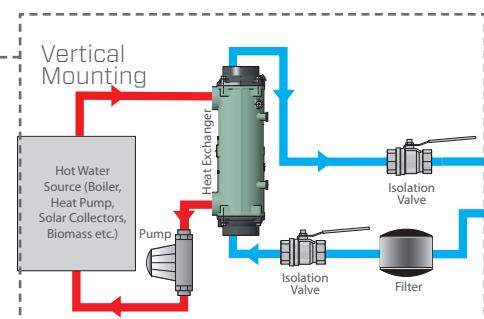


✓ Optimum heat transfer performance ✗ Reduced heat transfer performance

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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