

## PRODUCT PROFILE

# FG160-5115-5

## Swimming Pool Heat Exchanger

### Introduction

The Bowman FG160-5115-5 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

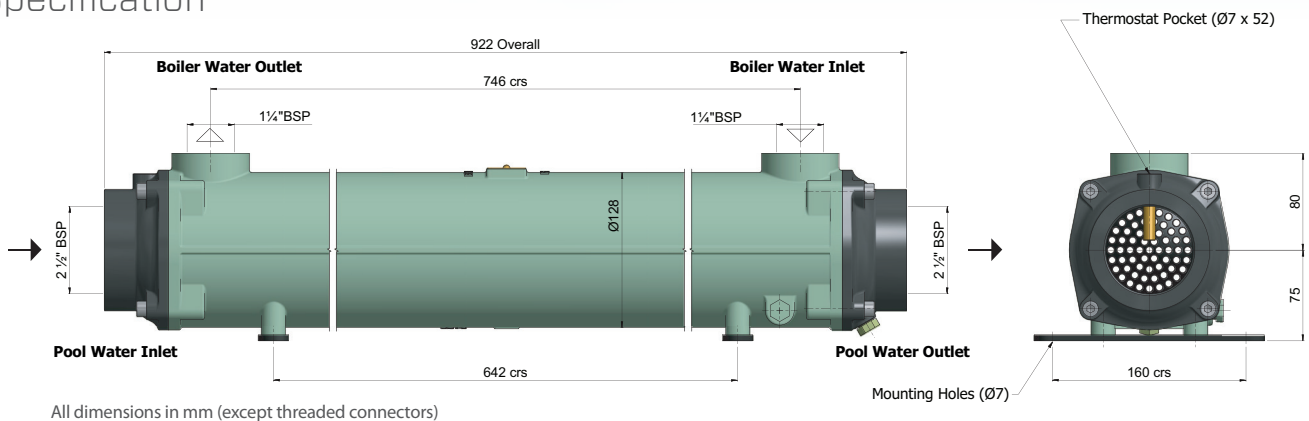
Boiler heating - 350kW  
Renewable energy - 150kW

### Product Benefits

- Proven** – heats pools fast, reducing energy costs
- Easy to install** – 2 1/2" BSP 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



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
		m <sup>3</sup>	gal	m <sup>3</sup> /h	l/min	°C	°F	bar	psi	bar	psi	
FG160-5115-5C	Cupronickel	320	70,000	39.0	650	110	230	6	87	6	87	29
FG160-5115-5S*	Stainless Steel	320	70,000	39.0	650	110	230	6	87	6	87	29
FG160-5115-5T	Titanium	320	70,000	39.0	650	110	230	6	87	6	87	25

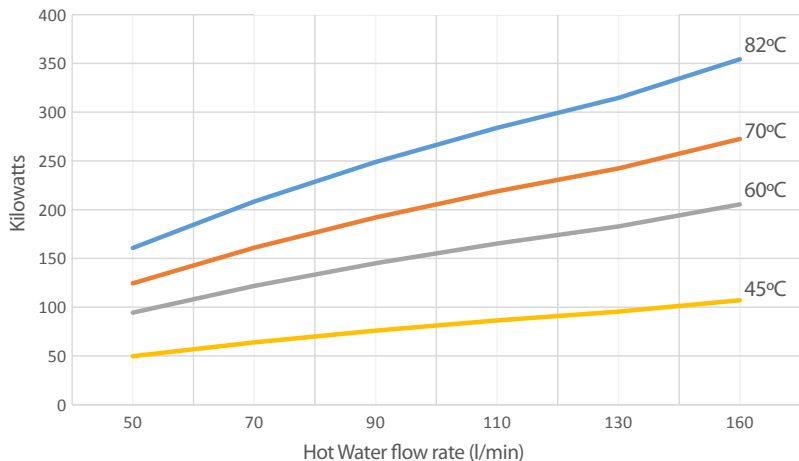
\*Not suitable for use on pools fitted with salt water chlorinators or salt water pools.

# 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/>

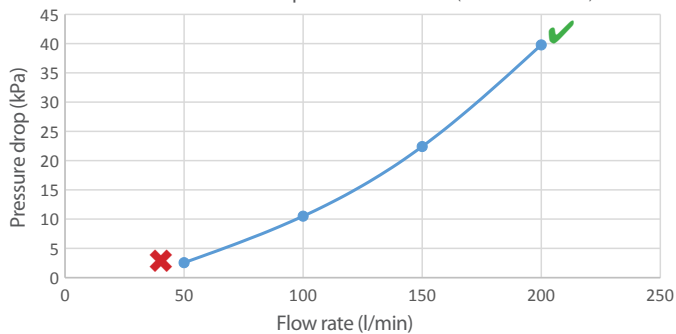
## Heat Transfer



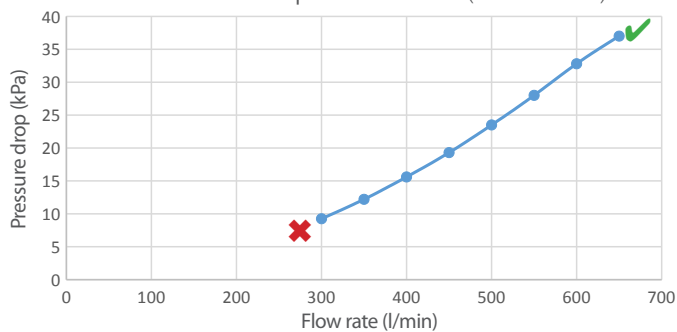
kW Heat Transfer - FG160 -5115-5  
Pool water flow 650 l/min at 28°C

Hot Water	Temperature & Heat Transfer			
Flow rate l/min	82°C kW	70°C kW	60°C kW	45°C kW
50	161	125	94	50
70	208	161	122	64
90	249	192	145	76
110	284	219	165	86
130	315	242	183	95
160	354	273	205	107

## Pressure Drop Hot Water (Shell Side)



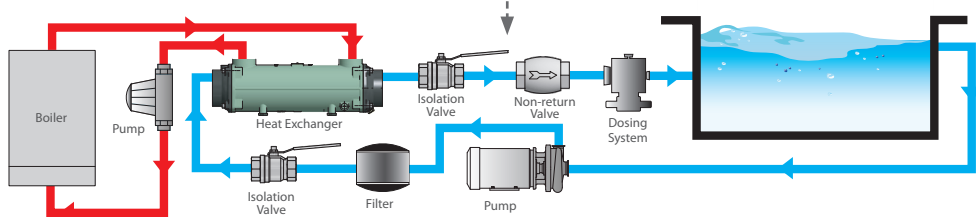
## Pressure Drop Pool Water (Tube Side)



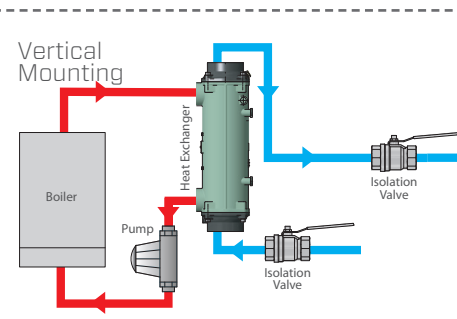
✓ Optimum heat transfer performance ✗ Reduced heat transfer performance

## 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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