

## PRODUCT PROFILE

# GK190-5117-3

## Swimming Pool Heat Exchanger

### Introduction

The Bowman GK190-5117-3 is an efficient shell and tube heat exchanger which is suitable for heating larger sized swimming pools up to 750 m<sup>3</sup> via a boiler heat source. The cast end covers are finished in 'C' coat, an advanced technology coating, which is highly corrosion resistant for durability and the unit is available with either a titanium or cupro-nickel tube core.

### Typical Heat Transfer

Boiler heating – 600kW

### Product Benefits

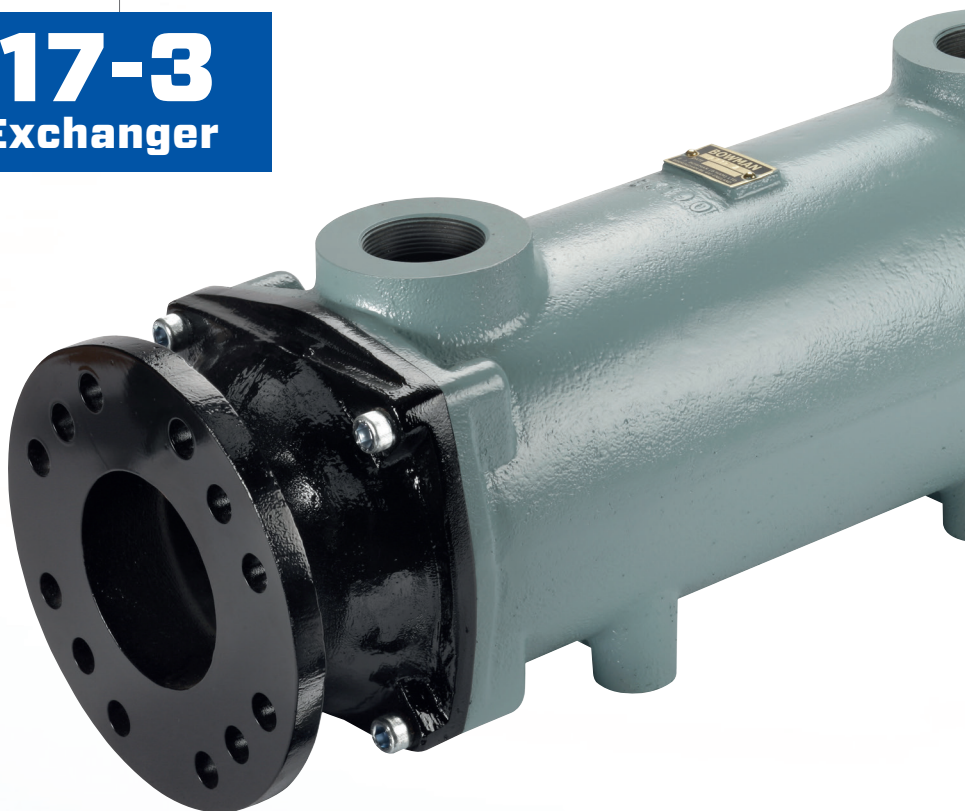
**Proven** – heats pools fast, reducing energy costs

**Performance** – designed for larger commercial and sports pools

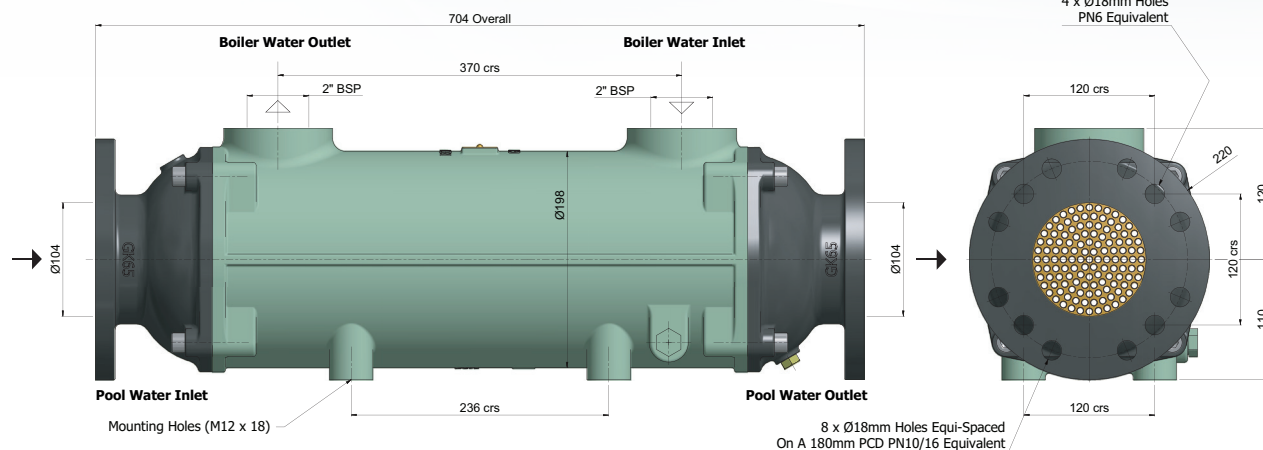
**Durability** – salt water and mineral rich fresh water compatible

**Simple to maintain** – easy disassembly for routine maintenance

**Titanium models** – full 10 year warranty on titanium materials



### Specification



All dimensions in mm (except threaded connectors). Flanges to BS EN 1092/1.

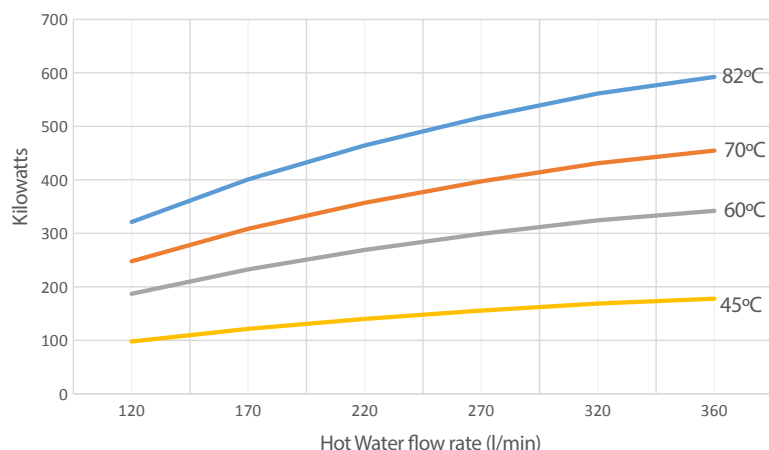
Type	Tube Material	Typical Pool Capacity		Maximum Pool Water Flow		Maximum Hot Water Temp		Max. Operating Pressure Pool Water		Max. Operating Pressure Hot Water		Weight
		m <sup>3</sup>	gal	m <sup>3</sup> /h	l/min	°C	°F	bar	psi	bar	psi	
GK190-5117-3C	Cupronickel	660	145,000	75.0	1,250	110	230	6	87	6	87	57
GK190-5117-3T	Titanium	750	165,000	96.0	1,600	110	230	6	87	6	87	51

## 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/>

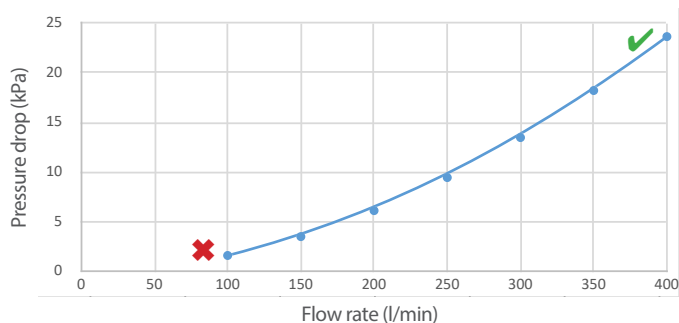
## Heat Transfer



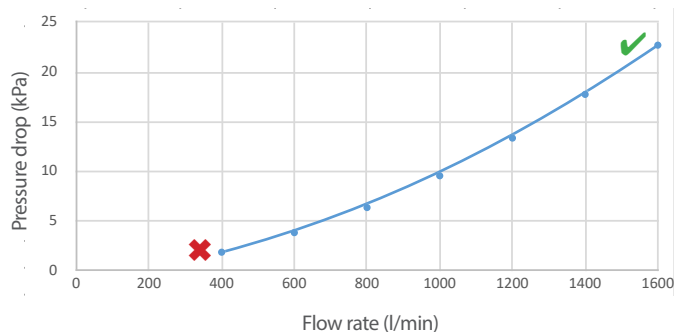
kW Heat Transfer - GK190-5117-3  
Pool water flow 1250 l/min at 28°C

Hot Water	Temperature & Heat Transfer			
Flow rate l/min	82°C kW	70°C kW	60°C kW	45°C kW
120	321	248	187	98
170	401	309	233	121
220	464	357	269	140
270	517	397	299	156
320	561	431	324	169
360	592	455	342	178

## Pressure Drop Hot Water (Shell Side)



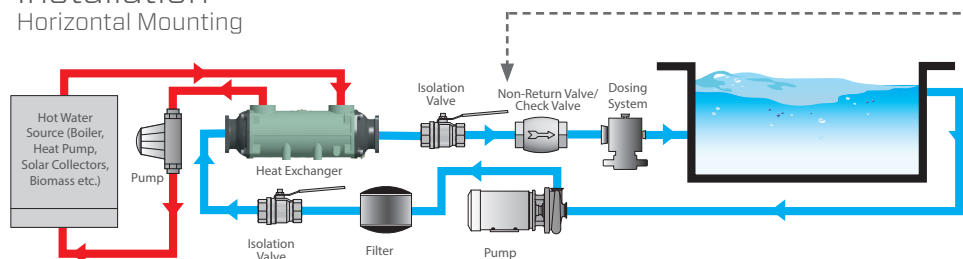
## Pressure Drop Pool Water (Tube Side)



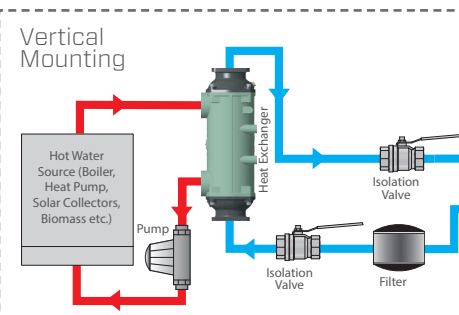
✓ Optimum heat transfer performance ✗ Reduced heat transfer performance

## 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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