

PRODUCT PROFILE

PK190-5119-3

Swimming Pool Heat Exchanger

Introduction

The Bowman PK190-5119-3 is a highly efficient shell and tube heat exchanger, which is designed for heating the largest size commercial swimming pools, up to 1,680 m³, 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 – up to 1170kW

Product Benefits

Performance – heats pools fast, reducing energy costs

Proven – designed for the largest commercial leisure or sports pools

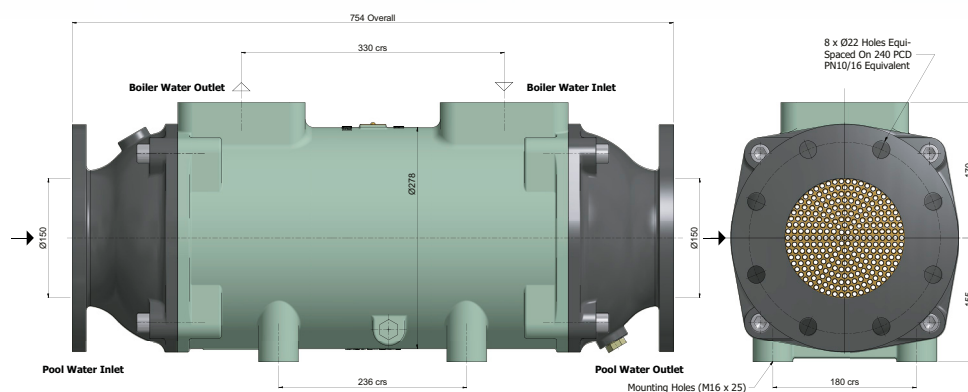
Durability – salt water and mineral rich fresh water compatible

Simple to maintain – easy disassembly for cleaning

Titanium models – full 10 year warranty on titanium models



Specification



All dimensions in mm (except threaded connectors)

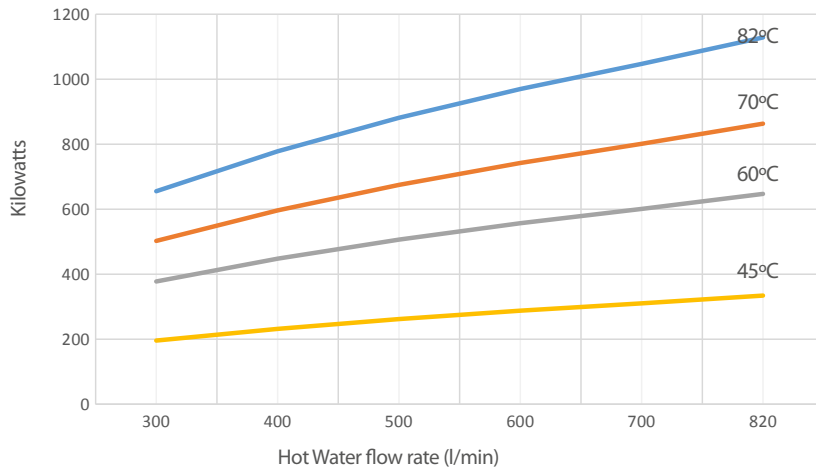
Type	Tube Material	Typical Pool Capacity		Maximum Pool Water Flow		Maximum Hot Water Temp		Max. Operating Pressure Pool Water		Max. Operating Pressure Hot Water		Weight
		m ³	gal	m ³ /h	l/min	°C	°F	bar	psi	bar	psi	
PK190-5119-3C	Cupro-nickel	1,500	330,000	175.0	2,900	110	230	6	87	6	87	120
PK190-5119-3T	Titanium	1,680	370,000	216.0	3,600	110	230	6	87	6	87	106

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/>

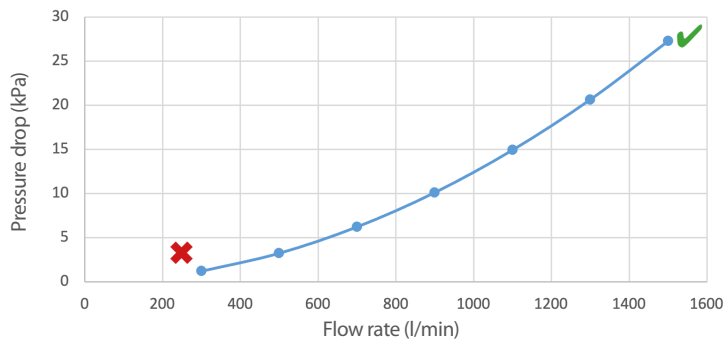
Heat Transfer



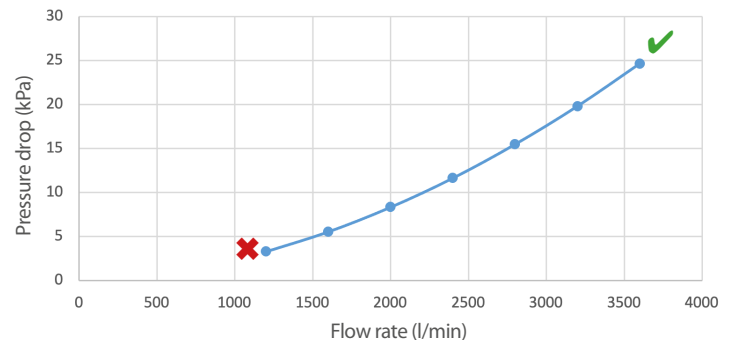
kW Heat Transfer - PK190-5119-3
Pool water flow 2900 l/min at 28°C

Hot Water	Temperature & Heat Transfer			
Flow rate l/min	82°C kW	70°C kW	60°C kW	45°C kW
300	655	503	378	196
400	778	596	448	232
500	881	675	506	262
600	970	742	557	288
700	1047	801	601	310
820	1128	863	647	334

Pressure Drop Hot Water (Shell Side)



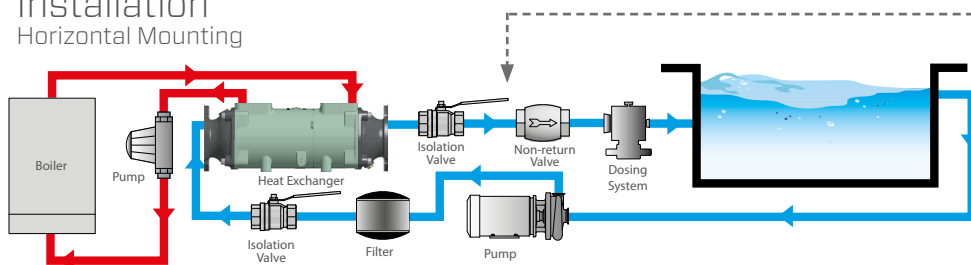
Pressure Drop Pool Water (Tube Side)



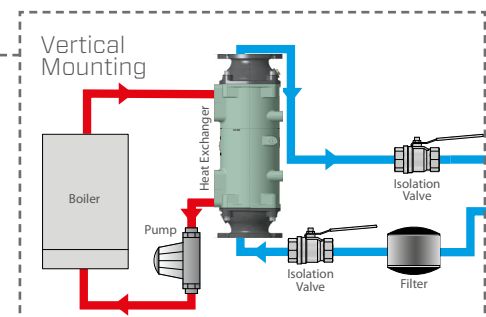
✓ Optimum heat transfer performance ✗ Reduced heat transfer performance

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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