# PRODUCT PROFILE

GL140-3708-2

**Swimming Pool Heat Exchanger** 

#### Introduction

The Bowman GL140-3708-2 is an efficient shell and tube heat exchanger which is suitable for heating swimming pools up to 478 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 - 300kW

### **Product Benefits**

Proven – heats pools fast, reducing energy costs

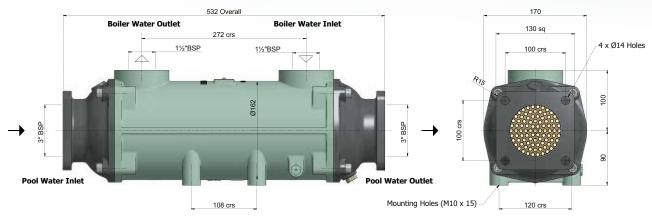
Easy to install – 3" BSP threaded end covers or 4 x Ø14 holes flange

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.

Туре	Tube Material	Typical Pool Capacity		Maximum Pool Water Flow		Maximum Hot Water Temp		Max. Operating Pressure Pool Water		Max. Operating Pressure Hot Water		Weight
		m³	gal	m³/h	l/min	۰C	۰F	bar	psi	bar	psi	kg
GL140-3708-2C	Cupronickel	455	100,000	50.4	840	110	230	6	87	6	87	30
GL140-3708-2T	Titanium	478	105,000	54.0	900	110	230	6	87	6	87	27



#### 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; <a href="https://ej-bowman.com/knowledge-centre/why-doesn't-my-pool-heat-up-faster/">https://ej-bowman.com/knowledge-centre/why-doesn't-my-pool-heat-up-faster/</a>

#### Heat Transfer 350 300 82°C 250 70°C Kilowatts 200 60°C 150 100 45°C 50 110 170 200 225 Hot Water flow rate (I/min)

kW Heat Transfer - GL140-3708-2 Pool water flow 840 l/min at 28°C

Hot Water	Temperature & Heat Transfer									
Flow rate	82°C	70°C	60°C	45°C						
l/min	kW	kW	kW	kW						
80	174	134	101	52						
110	209	160	120	62						
140	237	182	136	71						
170	260	199	150	78						
200	280	215	161	84						
225	295	226	170	88						

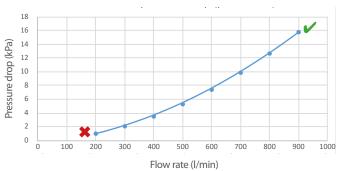
## 35 30 Pressure drop (kPa) 20 15 10

200

Flow rate (I/min)

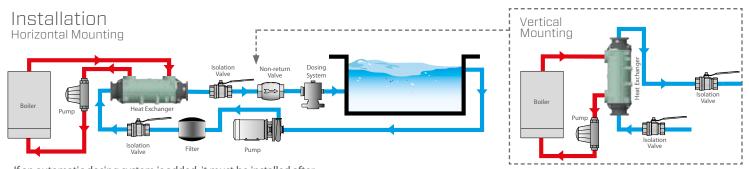
Pressure Drop Hot Water (Shell Side)

## Pressure Drop Pool Water (Tube Side)



350

300



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

#### EJ Bowman (Birmingham) Ltd

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Chester Street, Birmingham B6 4AP, UK Tel: +44 (0) 121 359 5401 Fax: +44 (0) 121 359 7495 Email: sales@ej-bowman.com www.ej-bowman.com



