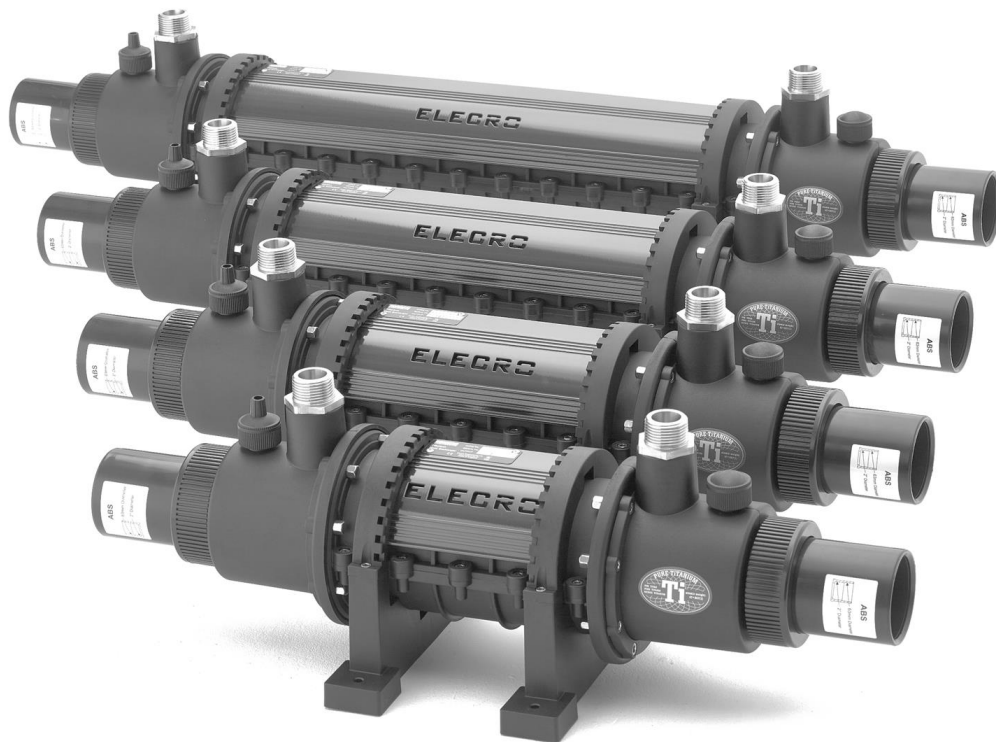


# ELEGRO

## ENGINEERING

### SST Heat Exchanger Installation & Operating Manual



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# INTRODUCTION

Thank you for purchasing the Elecro SST Heat Exchanger, manufactured in the UK to exacting standards, using the highest quality materials, to ensure exceptional performance and reliability.

To ensure years of trouble-free service, please **read and follow** these instructions for proper installation, maintenance and use.

**WARNING:** Failure to install the unit correctly may result in the warranty being void.

*Please retain this manual for future reference.*

## 1. PRODUCT OVERVIEW

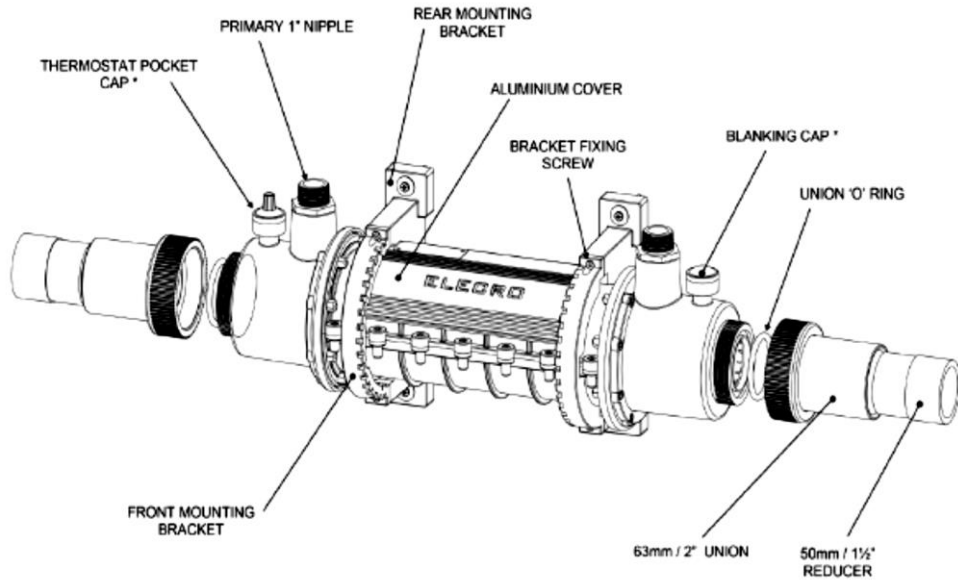


Fig 1.

*\*Thermostat Pocket Cap and Blanking Cap are interchangeable*

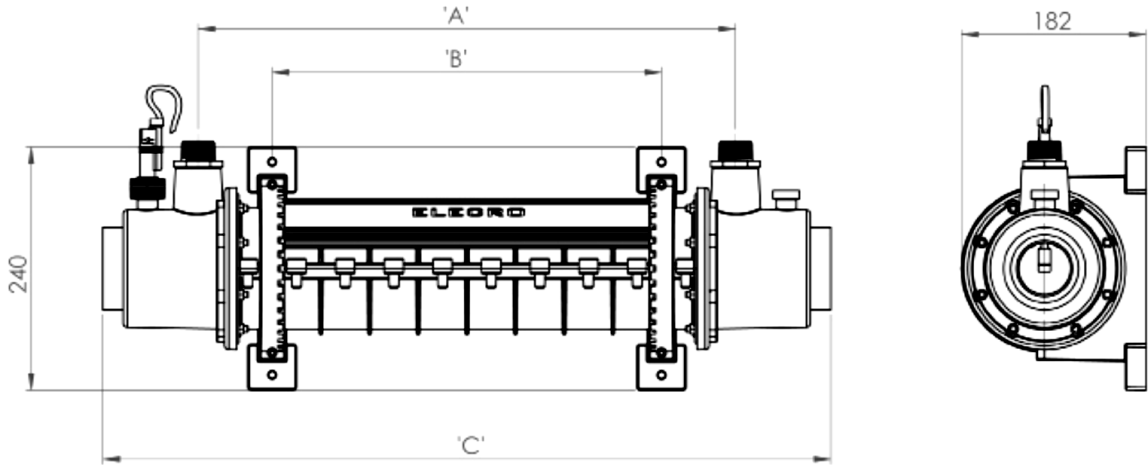
### 1.1 Specification

Standard Output	Primary Flow [m <sup>3</sup> /h]	Primary Head Loss (kpa)	Secondary POOL Flow [m <sup>3</sup> /h]	Secondary POOL Head Loss (kpa)	ΔT 50°C [kW]	ΔT 60°C [kW]	ΔT 70°C [kW]
36-kW	1.1	7.8	12	5.1	29	36	41
50-kW	2.5	26.0	15	8.8	42	50	57
75-kW	2.7	51.2	18	13.7	51	64	75
95-kW	3.2	77.4	18	16.6	67	81	95

- ΔT = Temperature difference between Primary and Secondary (Pool)
- To calculate BTU, multiply kW x 3412 (kW x 3412 = BTU Output)
- Max. Primary Pressure = 30 Bar
- Max. Secondary Pressure = 4 Bar

**Note:** Maximum primary operating temperature is 140°C

**1.2 Dimensions (mm):**



**Fig 2.**

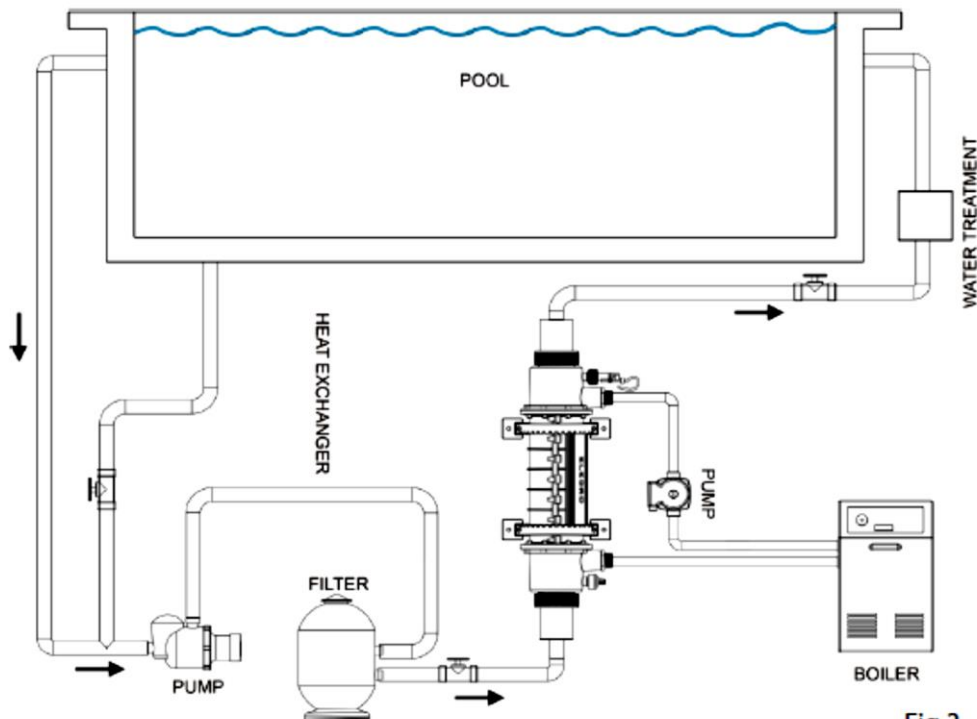
	<b>A</b>	<b>B</b>	<b>C</b>
<b>36-kW</b>	290	143	478
<b>50-kW</b>	386	240	574
<b>75-kW</b>	530	384	718
<b>95-kW</b>	674	528	862

**2. GENERAL INSTALLATION INSTRUCTION**

**2.1 Mounting instruction**

The Elecro SST Heat Exchanger can be installed either horizontally or vertically (please see Fig 3. And Fig 4.).

**Vertical Installation**



**Fig 3.**

## Horizontal Installation

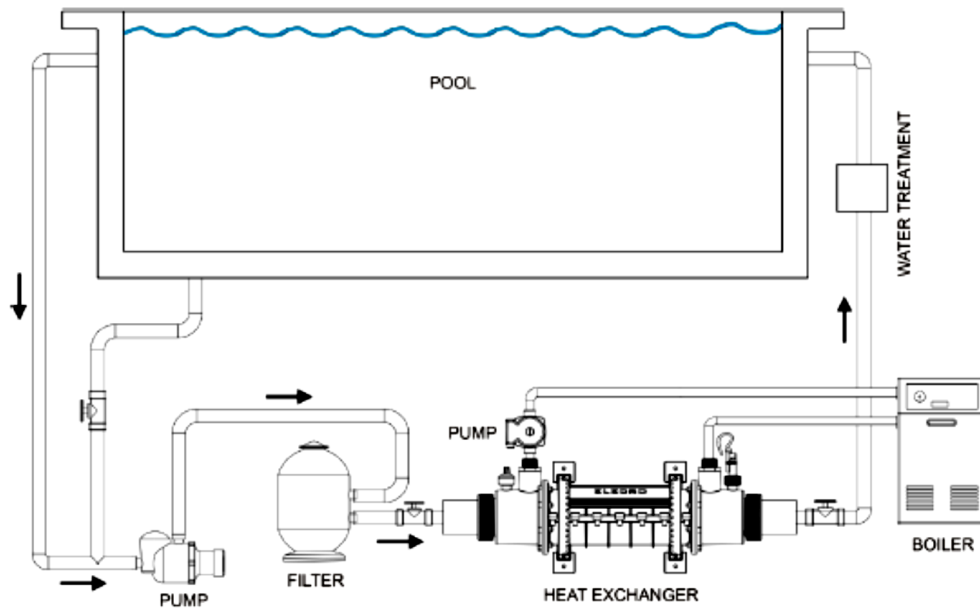


Fig 4.

## Wall Mounting

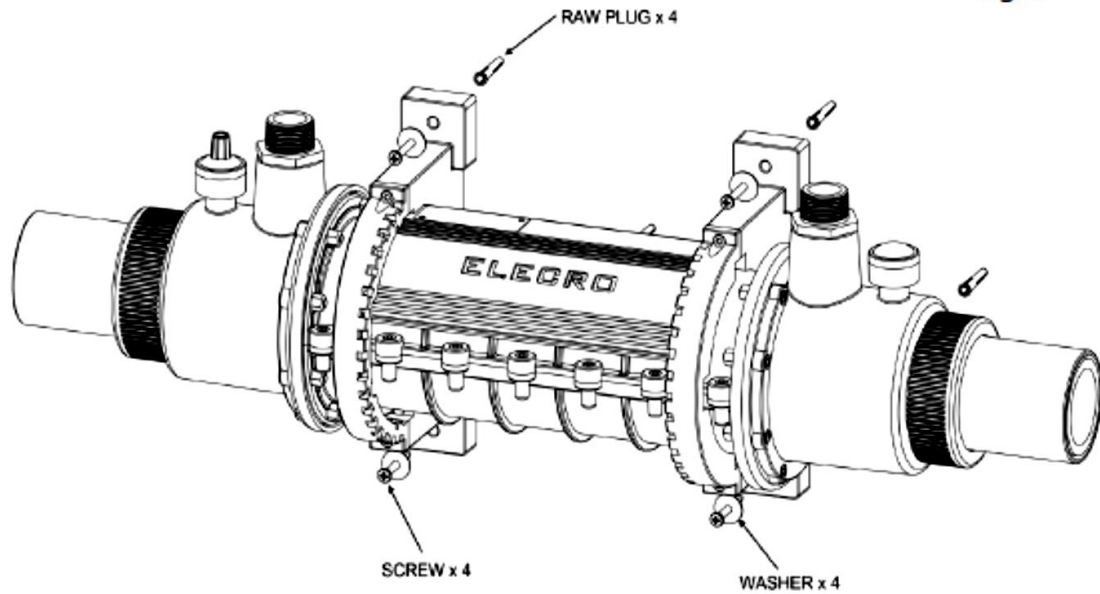


Fig 5.

**NOTE: Wall fixings are not supplied**

## 2.2 Flow direction

The Elecro Heat Exchanger should be connected to the two independent water circuits as follows:

### Connection to the secondary circuit (POOL Water)

The Heat Exchanger should be plumbed in line, after the filtration pump and filter and before any water treatment equipment. It should be fed with clean water. Debris must not be allowed to enter the Heat Exchanger. The Heat Exchanger should be installed as close as possible to the boiler to minimise heat loss.

To assist with correct air purging and to ensure that the Heat Exchanger remains full of water during operation, it should be installed at the lowest point in the filtration circuit.

**If the Heat Exchanger is installed in a vertical plain, it is essential that the pool/pond water (secondary circuit) enters low and exits high.**

### Connection to Heating or Cooling Circuit (Primary)

The Heat Exchanger should be connected directly to the primary heating circuit i.e. boiler, via the 1" BSP male connectors.

**NOTE:** *The circulation pump of the primary circuit should be controlled by a thermostat, which should be connected via the filtration pump to allow heating or cooling only when the filtration pump is running.*

Air bleed valves should be installed at the high points of the primary circuit. To ensure correct temperature detection, it is essential that the thermostat / thermistor is positioned at the water inlet of the Heat Exchanger.

**NOTE:** *The Thermostat Control is only included with the optional fully equipped kit. The standard unit is supplied only with a thermostat pocket and blanking cap.*

Care should be taken not to over tighten any connections, as this could result in damage to the Heat Exchanger.

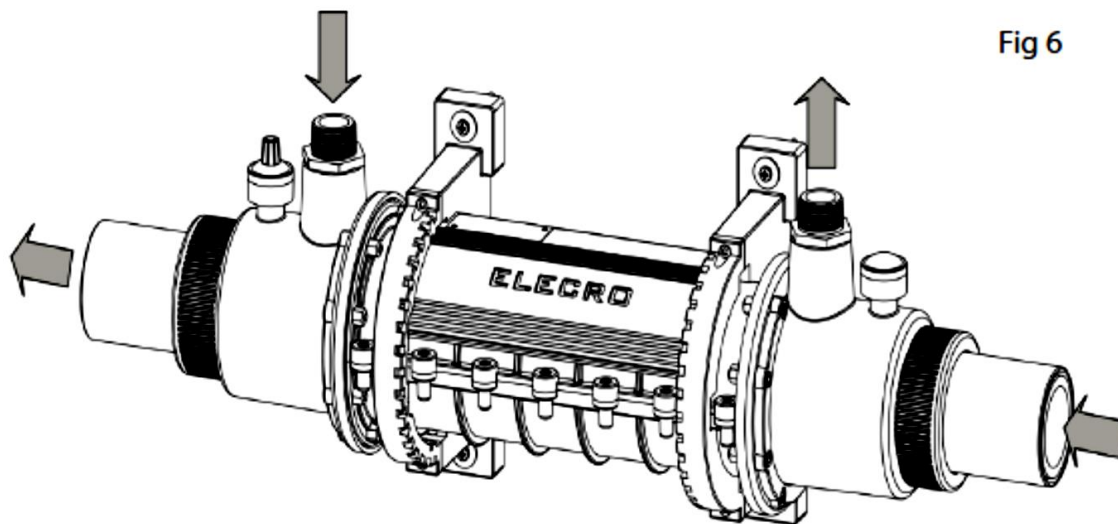


Fig 6

**CAUTION:** If the Heat Exchanger is not used during the winter months, it must be drained to prevent frost damage.

**NOTE:** *For Winterising / maintenance, it is recommended that the Heat Exchanger is installed with isolation valves on both water input and output sides of the primary and secondary circuits. This will allow the water to be shut off on both sides and aid removal from the system, when required.*

### **3. WATER QUALITY**

To prevent damage to the Heat Exchanger, the water quality must be kept within the following limits:

- PH: 6.8 – 8.0
- Total Alkalinity (TA): 80 – 140 ppm (parts per million)
- Chloride Content MAX: 150 mg/litre
- Free Chlorine: 2.0 mg/litre
- Total Bromine: Max 4.5 mg/litre
- Total Dissolved Solids (TDS)/Calcium hardness: 200 – 1,000 ppm

### **4. WARRANTY**

**The Elecro Heat Exchanger is guaranteed for 2 years from the date of purchase against faulty workmanship and materials.**

- The manufacturer will replace or repair, at its discretion, any faulty units or components returned to the Company for inspection.
- Proof of purchase may be required.
- The manufacturer will not be liable in cases of incorrect installation of the Heat Exchanger inappropriate use or neglect of the Heat Exchanger



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