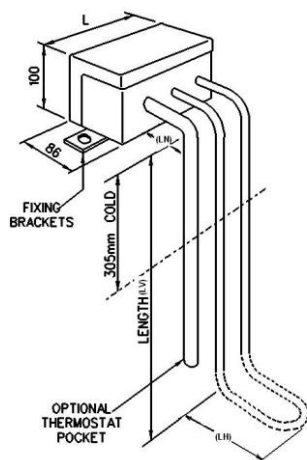


# IMMERSION HEATERS

## RV RANGE



### RV RANGE APPLICATION

The RV range is specifically designed for over the side mounting on tanks, vats, etc, with specifications available to suit the heating of acids, caustics and various plating solutions. The range is manufactured on a bespoke basis to suit vessel dimensions and solutions being heated.

Maximum kW loadings depend on application and are available in single phase (up to 6kW) and three phase (up to 30kW).

For a more accurate indication of your requirements please consult our Technical Department providing details on: tank dimensions, liquid being heated, operating temperature and any other relevant information.

It should be noted that only the contents of the tank above the heating elements will be heated unless the tank is agitated. It is therefore important to remember that top entry heaters should have elements that reach the bottom of the tank.

### STANDARD RANGE

The standard range is fitted with Nicalloy 825 elements which have good corrosion resistance to a wide range of liquids and chemical solutions. Nicalloy 825 is a "super alloy" which means it is a high nickel content stainless steel.

The heaters have a cold zone of 305mm (12"), however longer cold zones are available. The terminal enclosure is manufactured from 316L stainless steel, rated to IP55 and fitted with Viton seals which are resistant to a wide range of chemicals.

It is essential that the heated portion of the element is immersed at all times when the heater is in operation, therefore careful consideration should be given to the cold zone.

The standard range can be supplied with or without a thermostat fitted inside the terminal enclosure. Please refer to the section on Temperature Control

LIST No.	LENGTH	ENCLOSURE LENGTH		kW LOAD @ 240/415 V	No. OF PHASES
		WITH THERMOSTAT	WITHOUT THERMOSTAT		
RV101	Please Specify When Ordering	170	170	2	1
RV102		170	170	3	1
RV103		300	170	3	3
RV104		300	170	4.5	1
RV105		300	170	4.5	3
RV106		300	170	6	1
RV107		300	170	6	3
RV108		300	170	9	3
RV109		300	170	12	3
RV110		300	170	18	3
RV111		300	170	24	3
RV112		300	170	30	3

### SPECIALIST APPLICATIONS

The RV range is extremely flexible and our Technical Department can provide specifications suitable for a wide range of applications. In particular various element sheath materials are available such as stainless steel, titanium and PTFE coated

elements. To obtain a quotation or further information please contact our Technical Department.

### MOUNTING

Heaters are suitable for over the side mounting on open-topped tanks or vats. The enclosure is supplied with two fixing brackets at either side.

### TEMPERATURE CONTROL

Standard models are supplied with either no thermostat or with one control thermostat, with a range of 20-120°C (rated 16 Amps). Alternative thermostat ranges are available. Please contact our Technical Department.

A control thermostat should always be connected to the heater to prevent the contents of the tank from boiling. We strongly recommend the fitting of an over temperature cut-out thermostat to guard against the control thermostat failing in the 'ON' position.

Control and over-temperature cut-out thermostats can be supplied in an enclosure either separately or together without any heating elements fitted. This allows the thermostats to be positioned away from the heater. Please contact our Technical Department for further information.

Where the current consumed exceeds the thermostat rating, the heater must be wired through a contactor switch. A contactor switch must be fitted on all three phase supplies.

Control panels can be supplied incorporating all necessary controls. Please refer to our TC range.

### OPERATING TEMPERATURE

Standard models have a maximum operating temperature of 120°C, however care must be taken not to boil the contents of the tank. We recommend that an over-temperature cut-out thermostat is fitted. Please refer to the section on Temperature Control above.

### VOLTAGE

Single phase heaters from our standard range are designed to operate at 230/240V and three phase heaters at 400/415V.

Non-standard models can be supplied designed to suit operating voltages from 110V to 480V AC or DC. Please contact our Technical Department.

In the interests of safety, we recommend that RV heaters should always be wired through a Residual Current Device (RCD).

### CONSTRUCTION

Immersion heaters are manufactured generally to BS7798.

Elements are crimped into glands and the assembly is bolted to the enclosure. Individual elements can therefore be replaced once the heater has been removed from the tank.

The terminal enclosure is rated to IP55 and is constructed from painted 316L stainless steel with Viton seals.

### COMMON VARIATIONS

Please contact our Technical Sales Department for further information on the following variations:

- o Longer cold zones.
- o Various operating voltages in single or three phase star or delta.
- o Lower watts density elements for prolonged element life.
- o Alternative element sheath materials such as Titanium.
- o Alternative thermostat ranges.

**Note:** In the interests of safety, we recommend that "RV" heaters should always be wired through a Residual Current Device (RCD) and be connected to an over-temperature protection thermostat.