IMMERIONS HEATERS

XR RANGE

XR RANGE APPLICATION

The XR range is designed as a competitively priced, easy to install immersion heater, suitable for the majority of **vented and unvented,** domestic, copper or stainless steel cylinders with a 1¾" BSP boss.

A vented cylinder is one where the water supply comes from a cold water tank, often in the loft, and is not connected directly to the mains water supply. Unvented cylinders are connected directly to the mains water supply. Vented systems operate at low pressure while unvented systems operate at higher pressure.

The range features lower kW heaters intended for use with solar PV panels and allows the output of the immersion heater to be better matched to the output of the solar panels.

The XR range incorporates two rod type thermostats. One is a standard control thermostat and the second an over temperature safety cut-out thermostat with manual re-set intended to cut the electricity supply to the immersion heater should the control thermostat fail in the closed (On) position.

The XR range comes with a range of element materials to suit soft, hard and very hard waters.

All easily accessible live components are insulated. This is not the case on most equivalent products sold by other manufacturers.

All models are manufactured to the latest safety standard, BS EN 60335-2-73.

Element Sheath Materials

Nicalloy 800
- equivalent to Aqualoy, Superloy and Incoloy 800.
- suitable for soft, hard or aggressive waters.

Nicalloy 825
- equivalent to Incoloy 825.
- Suitable for very hard or aggressive waters.
- If the heater exhibits a kettling effect (produces a growling noise) try a Nicalloy 825 element.

LIST No.		kW LOAD	IMMERSED LENGTH mm (in)
NICALLOY 800 ELEMENTS	NICALLOY 825 ELEMENTS		
XR402		3	280 (11")
	XR502	3	280 (11")
XR403	XR503	3	380 (15")
XR412	-	1	280 (11")
XR422	-	1.5	280 (11")
XR432	-	2	280 (11")

Note: The standard list numbers above are for horizontally mounted immersion heaters.
For heaters used in vertically mounted systems please contact our sales department.

MOUNTING

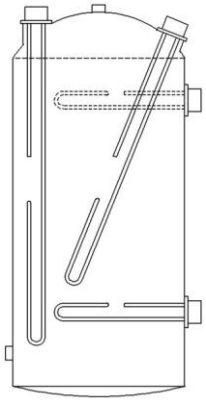
Top or side entry as illustrated in the diagram.

All heaters are screwed 1¾" BSP and are supplied with an EPDM WRAS approved O-ring seal.

It is important when installing a top entry immersion heater that its immersed length should be as long as possible to give the greatest volume of heated water in the cylinder. Due to convection an immersion heater will only heat the contents of the tank above the immersion heater. An approximate guide is the cylinder height less 150mm.

To enhance the efficiency of the standard immersion heater two options are available :

1) Fit two side entry immersion heaters. One at the bottom and the second at the top of the cylinder. The bottom immersion heater, when wired correctly, will heat the entire cylinder on off peak tariffs while the top immersion heater can be used to boost the temperature of the water quickly when required.
2) Fit a top entry immersion heater. This must be longer in length to reach towards the bottom of the cylinder.



Alternative Fixing Positions

TEMPERATURE CONTROL

All standard models are supplied with a factory fitted control thermostat rated 16 Amps and a factory fitted over temperature safety cut-out thermostat rated at 16 Amps with a manual reset function.

The over-temperature safety cut-out function is designed to prevent the temperature of the water in the tank from exceeding 98°C, i.e. prevent boiling. It is factory set and sealed at 80°C for horizontal applications and 90°C for vertical applications.

OPERATING TEMPERATURE & PRESSURE

Standard models have a maximum operating temperature of 70°C and a maximum operating pressure of 3.5 Bar.

VOLTAGE

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

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

CONSTRUCTION

Heaters are manufactured to BS EN 60335 Section 2.73. Elements are brazed into the brass boss. Thermostat pockets are of 316 stainless steel construction.

The IP21 rated terminal enclosure is constructed from a tough, V0 grade polymer and is provided with a cord grip to accept heat resisting cable.

COMMON VARIATIONS

Please contact our Technical Department for further details.

- Various kW loadings and voltages.
- Heater fitted with 3 core cable.
- Heater fitted with 3 core cable and plug.

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