

## 3KW IMMERSION HEATER TO LPC REQUIREMENTS

### RS102



#### The LPC Requirements State That

- A) The heater must not burn out when exposed to air (e.g. when the tank water level is below the immersion heater).
- B) It must be of dual element type, each capable of operating independently.
- C) It must be capable of being maintained without the need to drain the tank.

To comply with these requirements we have introduced the following features:

#### An Immersion Heater Complete With:

- 1) Two separate independently operable, withdraw able elements each 840mm long.
- 2) Each element rated at 1.5kw 240volt single phase.
- 3) Both elements enclosed in a stainless steel tube complete with 2.25" BSPF (ext) boss to allow the elements to be removed, if necessary, without lowering the tank water level.
- 4) An enclosed thermal cut out set to operate if the element temperature exceeds 60°C. The cut out will re-set when the temperature drops to a safe value.
- 5) A weatherproof IP 55 enclosure containing,
  - 5.1) An air temperature sensor set to operate when the ambient air temperature falls to 5°C.
  - 5.2) A triple pole interlocked isolating switch, to also isolate the test circuit, this conforms to the IEE regulations for switching and isolation of immersion heaters. Reg 554-05-03.
  - 5.3) All necessary terminations including an earth stud to allow bonding to the tank.

Although an air temperature sensor is not specified by the LPC it has been incorporated in the heater in order to save electricity and therefore reduce running costs by turning the heater off when the ambient air temperature is above 5°C.