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## **OPERATING AND MAINTENANCE**

### ***INSTRUCTIONS***

### **FOR**

### **ROD TYPE**

## **IMMERSION HEATER BATTERIES**

The Ormandy Group: Ormandy Offsite / Ormandy Rycroft / Ormandy Electric  
Ormandy H&S Boilers / Ormandy Newade / Ormandy Dreh / Ormandy Aquatherm  
Ormandy Electric is a trading name of Ormandy Limited

Registered in England No. 4087023 / VAT Registration No. 875 7906 65



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## 1. INSTALLATION OF IMMERSION HEATERS

Immersion heaters are designed for installation in a horizontal position.

Adequate space must be provided for removal of the complete heater assembly.

**N.B:** Before undertaking any maintenance work the heater should be electrically isolated and normal safety precautions taken.

## 2. SETTING OF THERMOSTATS

The thermostats, being in close proximity of the heating elements respond to the path of the stream of liquid rising by convection from the heating element sheath, therefore sense a higher temperature. An allowance for this should be made by setting the thermostats slightly higher than the required storage temperature with further adjustments made thereafter to obtain the true storage temperature of the liquid.

The master thermostat, being of the lock out/hand reset pattern should be 10/15 deg C., above the setting of the control thermostat.

## 3. ELECTRICAL CONNECTIONS

The heating elements are wound for 240 volts electrical supplied and connected in star formation for 415 volt 3 phase 3/4 wire electrical supply.

## 4. MAINTENANCE

### 4.1 PERIODIC

- a) Ensure that all connections remain clean, tight and dry.
- b) When heat unit is fitted in an area with hard or aggressive water conditions, the life & operation could be adversely affected. Regular maintenance & the fitting of a water softener may improve conditions.

The fixing gland joint is to be inspected for leaks and should any prevail the immersion heater should be switched off and electrical connections unwired.

## 4.2 GENERAL OVERHAUL

- a) Isolate heater electrically.
- b) Remove terminal box lid.
- c) Disconnect incoming cables from terminal block and release conduit connections.
- d) The heater is to be removed and refitted using a new gasket to suit the size of fixing gland.
- e) Remove heater from tank boss and inspect rod elements for scale and corrosion. Remove scale by wire brushing.
- f) All electrical cables are to be inspected for good contact and tight connection at all terminals by the site electrician during normal scheduled surveys.
- g) Replace heater unit.

## 5. SPARES

### 5.1 THERMOSTATS

If a thermostat is faulty in any way it must be returned to our works for inspection. Thermostat can be easily removed by releasing the electrical connections and retaining screws.

When a spare thermostat is required give full details of heater unit from the nameplate, including Model Number, Serial No and Electrical Loading.

### 5.2 HEATING ELEMENTS

The heating elements are a factory replacement and the complete unit is to be returned for repair or replacement to Ormandy Electric Heaters.

If there are any queries concerning the heater contact Ormandy Electric Heaters Technical Staff on 01274 362798, giving full details which can be found on the terminal box nameplate.

The full information being:-

- a) Model No.
- b) Voltage
- c) Rating (kW)
- d) Serial No.

## **6. FAULT CORRECTION**

### **6.1 POOR CONTROL CHARACTERISTICS**

Reset thermostats in accordance with Section 2.

Control differentials do not usually exceed +/- 5 deg C.

**IF ANY OTHER QUERIES ON HEATER FAULT WISE - PLEASE CONTACT  
ORMANDY ELECTRIC HEATERS TECHNICAL STAFF ON 01274  
362798. QUOTING REFERENCES IN 5.2.**

Failure of this unit due to the accumulation of solid materials, deposits in the form of scale and chemical attack (chlorination) is not covered by warranty.