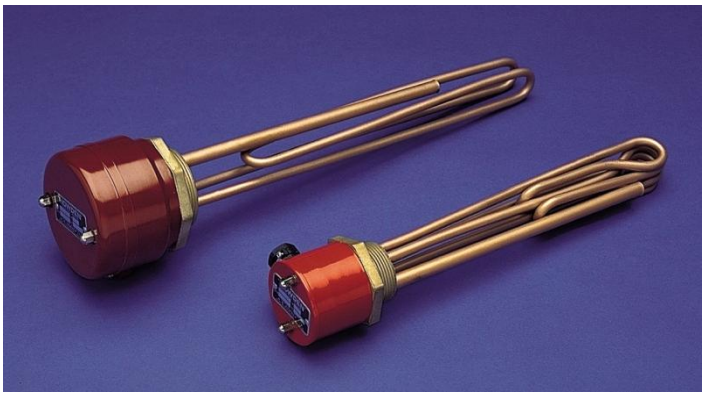
IMMERSION HEATERS

SA RANGE



SA RANGE APPLICATION

The SA range of immersion heater is designed to heat water in building service applications or heat water and other liquids in industrial and process applications. The range is easily adapted to suit OEM equipment.

Immersion heaters are ideal when fitted to calorifiers, buffer vessels or heat stores to be used as a backup or boost for heat pumps or conventional boilers.

The range features metal sheathed rod elements which are fixed to the threaded connection boss. If an element were to fail, the entire heater requires to be replaced.

All models are fitted with a robust, pained mild steel terminal enclosure rated to IP65. Thread sizes are available in 1¼ and 1½" BSP.

STANDARD RANGE

The standard SA range of immersion heaters is designed to heat water in building service, industrial and process applications.

kW loadings are available in single phase up to 6kW and three phase up to 15kW. Boss sizes are available in 1¼ and 1½" BSP. A selection of list numbers are kept in stock.

The Nicalloy 825 elements have an average watts density of 9W/cm^2 (60W/in^2), offering improved resistance to hard or aggressive waters. Nicalloy 825 is a "super alloy" which means it is a high nickel content stainless steel.

LIST No 1¼" BSP	LIST No 1½" BSP	kW LOAD @ 240V	PHASE	IMMERSED LENGTH mm (in)
SA211	SA411	1	1	280 (11")
SA212	SA412	2	1	280 (11")
SA213*	-	3	1	280 (11")
	SA413*	3	1/3	280 (11")
SA214	-	3	1	380 (15")
SA215	SA415	4	1	485 (19")
-	SA416	4.5	1/3	380 (15")
SA217	-	5	1	605 (24")
SA218	-	6	1	685 (27")
-	SA419	6	1/3	485 (19")
-	SA420	6	1/3	580 (23")
-	SA421	7.5	3	605 (24")
-	SA422	7.5	3	695 (27.5")
-	SA423	9	3	685 (27")
-	SA424	9	3	910 (36")
-	SA425	12	3	910 (36")
-	SA426	12	3	1,025 (40")
-	SA427	15	3	1,220 (48")

* Watts Density of the SA213 & SA413 models is 12W/cm^2.

SPECIALIST APPLICATIONS

The SA range is extremely flexible and our Technical Department can provide specifications suitable for a wide range of applications such as sterilisers, industrial washing machines, wash sinks, steam raisers, etc. To obtain a quotation or further information please contact our Technical Department.

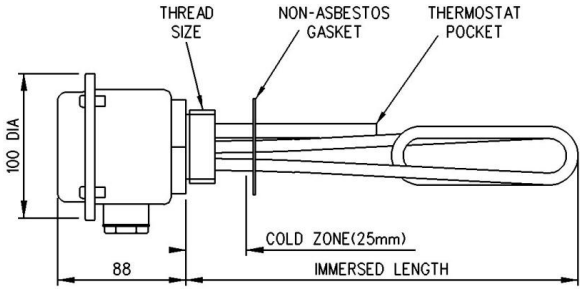
MOUNTING

Heaters are suitable for horizontal screwed mounting, however vertical mounting heaters can be supplied. Please contact our Technical Department.

To avoid localised boiling or air locks, care should be taken to ensure the cold zone extends beyond any neck piece. Longer cold zones are available. Please contact our Technical Department

Thread sizes available are 1¼" and 1½" BSP. For details on which size of thread is appropriate please refer to our Technical Data Section on our website.

The heater is supplied with a WRAS approved fibre gasket.



TEMPERATURE CONTROL

All standard models are supplied with a factory fitted control thermostat with a range of 37-90^{o}C rated at 20 Amps. Alternative thermostat ranges are available. Please contact our Technical Department.

Please note that there is no over-temperature safety cut-out thermostat fitted to the SA range. The over-temperature thermostat should be fitted elsewhere in the vessel.

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 & PRESSURE

Standard models have a maximum temperature of 90°C and a maximum operating pressure of 6 Bar.

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.

CONSTRUCTION

Immersion heaters are manufactured generally to BS7798.

Elements on standard models are brazed into the threaded boss using silver solder. Individual elements cannot be replaced.

The boss material on the standard range is brass. Alternative materials are available.

The terminal enclosure is constructed from painted mild steel and rated to IP65 with one M25 conduit entry.

COMMON VARIATIONS

Please contact our Technical Department for further details. Also refer to our WR range.

- Various operating voltages in single or three phase star or delta.
- Nickel plated copper elements.
- Alternative thermostat ranges.
- Longer cold zones.
- Vertical mounting heaters.
- Low water level indication thermostat.

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