



Backer Electric Company Limited

Industrial Immersion Heater

The Backer comprehensive range of water immersion heaters are suitable for all commercial and industrial tanks and cylinders. They are supplied with an adjustable setting stem type thermostat to provide an automatically controlled hot water service.

DESIGN FEATURES

The element sheath is made from Incoloy, which is one of the best corrosive resistant materials available for immersion heater applications.

- High Impact cast aluminium heavy duty terminal box in epoxy powder finish
- Certified weatherproof to IP 65
- Two conduit entries (standard 1 x 25mm)
- Heavy duty brass heads screwed 2" or 2 1/4" BSP
- Suitable for working pressures of 36 psi (2.5 bar)

Terminal box is designed to give excellent access for wiring. The box can be rotated through 360°C to allow the most favourable position for the conduit connection to be chosen.

Conform to Electro Magnetic Compatibility regulations (EMC), Electrical equipment (safety) regulations, Low Voltage Directive (LVD), and CE marking regulations.

When selecting an immersion heater the following should be taken into account:

The optimum stratification is obtained by mounting the heater horizontally at the bottom of the tank. Choosing the longest immersed length that can be accommodated in the vessel will keep the watts density as low as possible, which will assist in the life expectancy of the heater. We would not advise the mounting of heaters in deep neck rings as localised boiling will occur. The vessel and associated pipework should be well insulated to conserve energy and reduce running costs. This can be further enhanced by the use of suitable controls in conjunction with peak tariffs.

Details of Immersion Heater Range over page



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2" STANDARD SCREWED IMMERSION HEATERS

LOADING (kW)	CATALOGUE NO.	PHASES	IMMersed LENGTH	
			Inches	mm
1	SYA111	1	11	280
2	SYA216	1	16	405
3	SYA311	1 OR 3	11	280
3	SYA330	1 OR 3	30	760
4	SYA411	1 OR 3	11	280
4	SYA416	1 OR 3	16	405
6	SYA616	1 OR 3	16	405
6	SYA630	1 OR 3	30	760
6	SYA642	1 OR 3	42	1065
9	SYA918	1 OR 3	18	460
9	SYA923	1 OR 3	23	585
9	SYA936	1 OR 3	36	915

2 1/4" STANDARD SCREWED IMMERSION HEATERS

LOADING (kW)	CATALOGUE NO.	PHASES	IMMersed LENGTH	
			Inches	mm
1	SYB111	1	11	280
2	SYBR211	1	11	280
3	SYB311	1 OR 3	11	280
3	SYB330	1 OR 3	30	760
4	SYB411	1 OR 3	11	280
4	SYB416	1 OR 3	16	405
4	SYB428	1 OR 3	28	710
6	SYB616	1 OR 3	16	405
6	SYB630	1 OR 3	30	760
6	SYB642	1 OR 3	42	1065
7	SYB724	1 OR 3	24	610
9	SYB918	1 OR 3	18	460
9	SYB923	1 OR 3	23	585
9	SYB936	1 OR 3	36	915
12	SYB1224	3	24	610
12	SYB1232	3	32	815
18	SYB1836	3	36	915
18	SYB1844	3	44	1120

Type Number KEY

S = Screwed

A = 2" BSP

Y = INCOLOY

B = 2 1/4" BSP

R = DOUBLE HAIRPIN
Number kW and Length

VOLTAGE

Single phase heaters are calibrated to give rating at 240V but are suitable for the range 200/250V. Three phase heaters likewise are calibrated at 415/240V and are suitable for 346/440V three phase four wire star connection on AC. Special voltages and alternative wiring are available to order.

OPERATING CONDITIONS

Working temperature is up to 150°C (300°F) maximum. Heaters are pressure tested to 73psi (5bar) for working pressure of 36 psi (2.5 bar).

ACCESSORIES

Brass adaptor 2 1/2" BSP to 2 1/4" to enable our 2 1/4" BSP heaters to be fitted into 2 1/2" BSP.

