



PEREGRINE



TOP ENTRY TANK HEATER INSTALLATION NOTES

PEREGRINE standard and weatherproof top entry tank heaters are installed using the following general guidelines:

The heater will have been supplied to suit a particular depth of tank, specified by the customer and detailed in the heater's part number. The heater will be supplied with a gasket to enable you to seal the heater's flange to the upper tank surface, by drilling and tapping the tank, welding on a flange (we can supply) or by attaching mounting bolts to/through the tank. Dimensional drawing T42fg refers (request if needed)

The supplied gasket is placed on to the tank heater's mounting bolts and an appropriate sealant applied to both sides. A bracket/foot is ideally needed to hold the element far end off the base of the tank (we can supply). The heater is lowered into the tank such that the element runs across the tank for maximum heat dispersion. For longer elements (700mm and longer) loop a cord around the far end of the element to aid with lowering and to prevent heater damage, pulling cord out just before heater beds to flange/tank. The bolts are then tightened in place to hold the heater. On applications where the heater may be subjected to vibration or movement the heater should be secured. The heater head has a 10mm thread and the far end of the elements has a 9.5mm hole, both to assist with mounting.

The **PEREGRINE** heater is supplied with a standard 2Metre cable (longer if requested), and the thermostat within the heater will have been set at the required level if stated on customer order, or to our standard setting of 7°C if not stated. Once the heater has been tightened in place, it is only necessary to cut the cable (and cable armour if requested, or standard with weatherproof models) and join the heater to the power supply.

If there is a possibility that the heater may be operated not entirely covered with the liquid to be heated, we recommend that a level switch be fitted to the tank. This would be wired to cut off the heater's power supply should the liquid level in tank fall to a level close to the heater's upper surface. When used in applications where the tank height is in excess of 1.5 metres we suggest the addition of a separate control thermostat partway up the tank to prevent the formation of an excessive temperature gradient within the tank.

Once the heater is wired in place and liquid has been added to the tank it is only necessary to switch on the power to the heater. If you have any installation queries whatsoever with any of our tank heaters, please do not hesitate to contact our Sales Office, details below.

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WIRING

55, 110, 220 and 240 volt, 1phase wiring. 2 Metre cables will be fitted to the unit, in 1760mm flexible conduit for our weatherproof versions. Connect blue to neutral, brown to live, and green/yellow to earth, suitably fusing the supply. We would recommend an earth leakage breaker is installed for safety. DC wiring. 2 metre wires will be fitted to the unit, in 1760mm flexible conduit. Connect red to +ve, black to -ve, suitably fusing the supply Three phase wiring. 2 metre wires will be fitted to the unit, in 1760mm flexible conduit. Connect black, brown and grey to the three phases, suitably fusing the supply. It is not critical which phase is which on these heaters. Connect green/yellow to earth. We would recommend earth leakage breakers are installed for safety. In all cases longer cables and conduit may be requested at time of ordering, to suit your application.

SAFETY & MAINTENANCE.

As standard, Peregrine fuel heaters are supplied with a maximum surface-watts-density of 2.4 watts/cm². With the advent of various types of bio-fuel it is recommended that you check with your particular fuel provider that this level of surface heat output is suitable for their product. We can supply heaters with lower swd down to whatever levels are required. It is recommended that the elements' surfaces be inspected at regular intervals for carbon build-up, initially after say a month of active use. If any build-up is found on the surface it should be cleaned off carefully and a schedule created to ensure that an excessive level of build-up is prevented. If none is found at that time then a longer inspection period would be put in place. Excessive build-up will cause the element to overheat locally which will cause eventual failure.