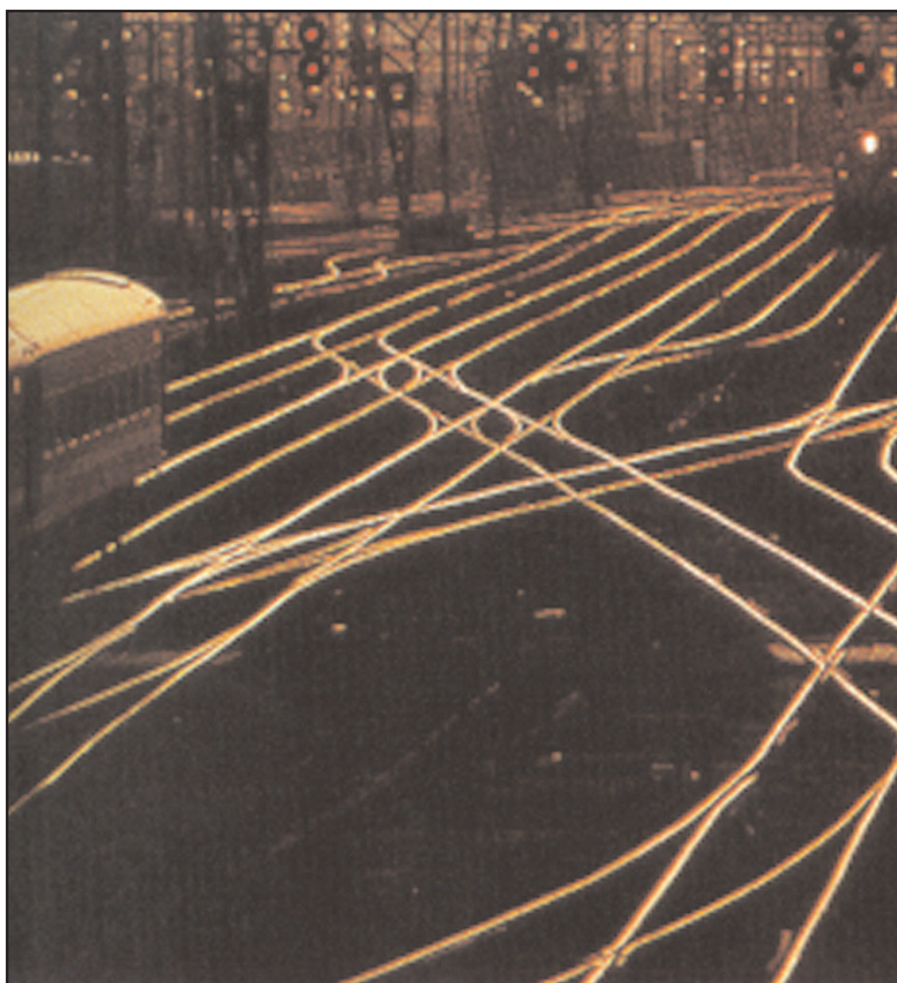




RHT RAIL HEATER

Rail & Switch Point Heating System



*Pre-Terminated Lengths
or Cut-to-Length from the Reel*

RHT Rail & Switch Point Heating System

Introduction

Rail switch points suffer during the winter months from snow and ice blocking the moving rails and switch point mechanisms, causing failures and subsequent disruption to rail traffic.

Existing heating systems vary considerably and can often be inefficient, unreliable, expensive to maintain and operate and generally unsuitable for the rigorous environment associated with rail heating.

To combat these problems, Heat Trace Ltd have developed their RHT Rail & Switch Point Heating System. Utilising the latest surface heating technology, a high power, constant watt output heater, together with a highly energy efficient control system, the RHT Rail & Switch Point Heating System is an effective, highly reliable and energy efficient system.

Installation

The RHT heater can be supplied in pre-terminated lengths of 3, 4, 5 and 6 metres, fitted with a factory terminated cold lead. These cold leads may be fitted with a moulded 2 pin anti-vibration plug, if required, or supplied plain for connecting into a track-side junction box, or directly into the track-side transformer.

The RHT heater can also be supplied in longer pre-terminated lengths up to a maximum of 23 metres (230 VAC) or 11 metres (115VAC).

FEATURES & BENEFITS

- High power outputs up to 200 W/m
- Supplied in voltages 120VAC or 240VAC
- Flexible yet robust construction
- Parallel resistance - constant watt output
- Pre-terminated, or cut-to-length from the reel
- One heater for all applications
- Reduced stocking levels
- Compatible with existing connections and controls systems
- Reduced operating costs (when POWERMATCH system included)
- Competitively priced

Alternatively, the heater may be cut to length from the reel then terminated and installed with the minimum of effort. This facilitates a simple one product stocking capability. No special equipment is required.

Design

The RHT Systems contain all the items necessary to provide protection against snow and ice for switch points, swing nose crossings, switch diamonds, braking areas and high speed curves. The heaters may be fitted at the base of the rail, or under the top flange, depending on the rail profile, track fittings, or user preference. The heaters apply heat directly to the rail - the most effective way to prevent snow and ice build up.

The RHT heater is jacketed in a continuous aluminium extrusion offering a high degree of mechanical strength, yet retaining more flexibility than other metal sheathed heaters.

For third, or live contact rail heating, an optional additional fluoropolymer outer sheath is available.

(Also - See separate data sheet for **CRH Self Regulating Contact Rail Heater** - as used for Chicago Transit Authority 600 volt dc contact rail.)

The specially designed heavy duty rail clip ensures continuous close contact with the rail, providing a highly effective and efficient system.

Controls

The control system utilises automatic controllers that activate the switch point heating according to local weather conditions using a combination of rail temperature, precipitation and snow sensors.

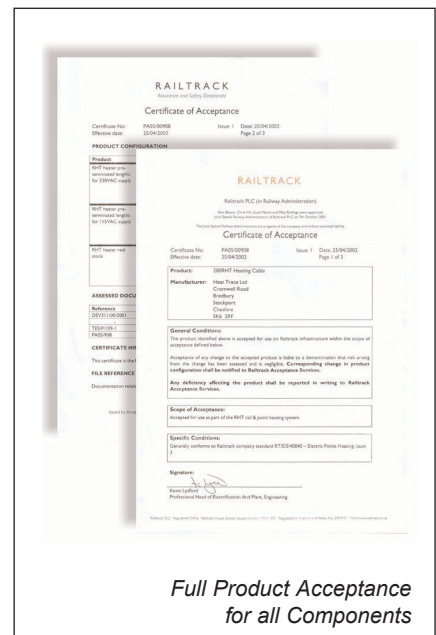
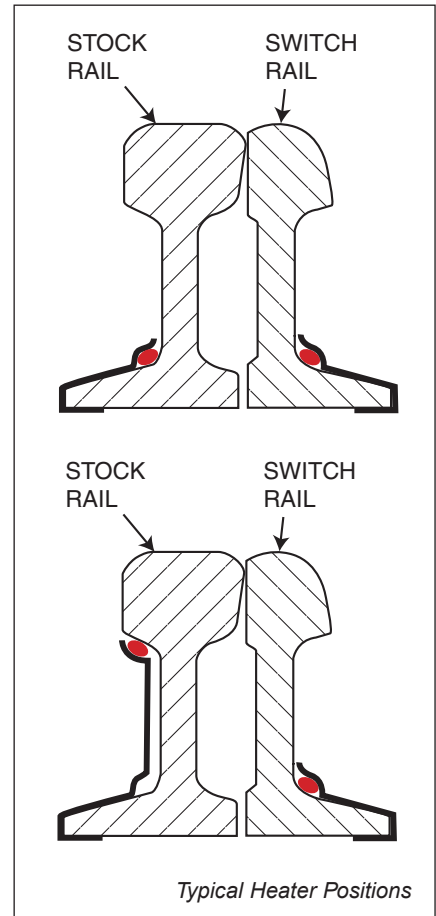
Optional remote monitoring provides automatic defect reporting to assist in providing an effective preventative maintenance strategy.

The unique POWERMATCH Controller can reduce annual operating costs by as much as 85-90 %.

The RHT heater is designed to be compatible with existing control systems and trackside equipment.

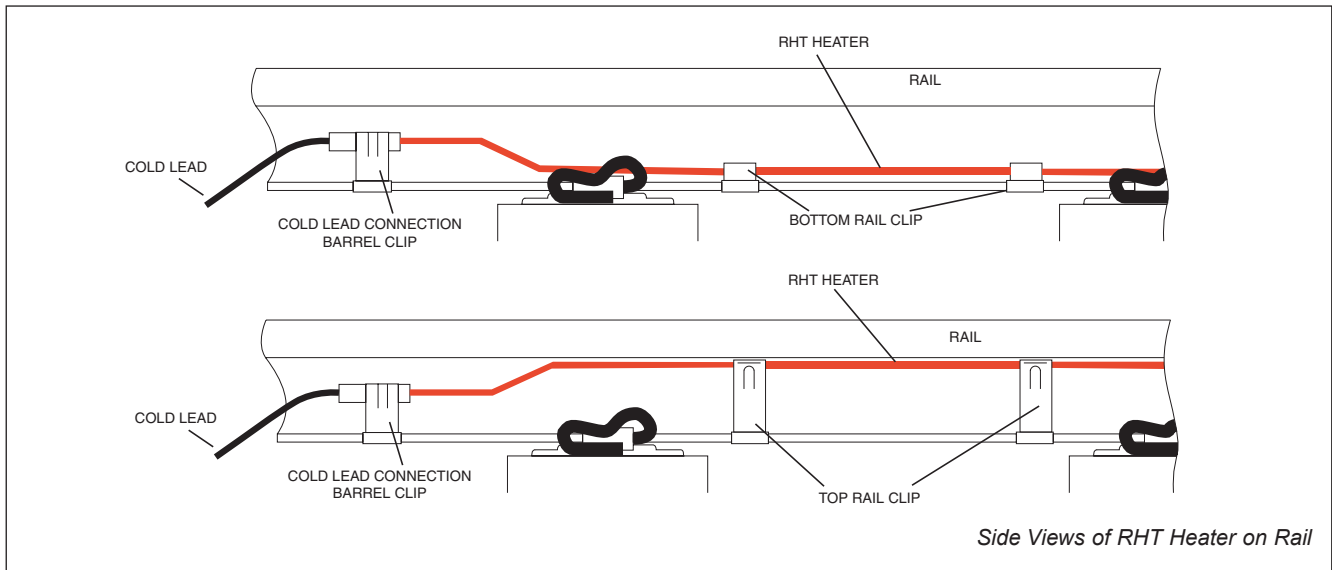
Heater Positions

The RHT heater is suitable for use on both the stock rail and switch rail and can be mounted either at the top or bottom of the rail. Heavy duty clips are available for most rail profiles.



RHT Rail & Switch Point Heating System

Heater Layout



The size of the switch point will dictate the number and length of the RHT heaters deployed. RHT heaters are supplied in a range of lengths - 3m, 4m, 5m and 6m as standard, each fitted with a 2 core cold lead power cable. Heaters may be fitted in sets of 4, 8 or 12, depending on the heated length of the switch point. The heater is usually fitted to both the (fixed) stock rail and the (moving) switch rail.

The flexible cold lead cable can be connected to a moulded connection block located either in the centre, or at the side of the track. Alternatively, the cold lead may be connected directly into a track-side mounted junction box, or directly into the track-side isolating transformer. The track-side transformer is fed from a suitable local power supply.

The RHT heater is normally located at the base of the rail using the special heavy duty spring clips provided.

(Where J blocks are used on the rail, as with the old 113A rail profile, the heater is located behind the J block and runs along the bottom flange. Where it is not possible to locate the heater behind the J block, top rail clips may be used to position the heater along the top flange of the rail.)

A barrel clip is used to secure the cold lead connection to the rail.

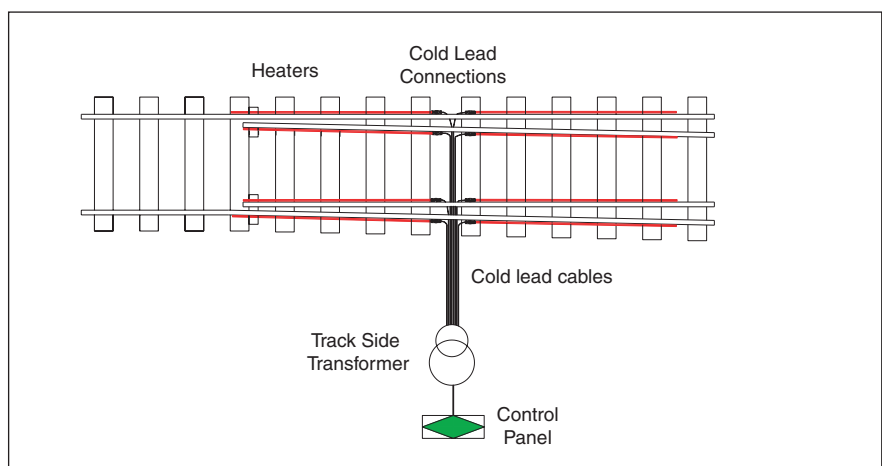
All RHC rail clips are approved for use with rail and switch point heating applications. Their robust design means:

Excellent weathering resistance.

Resistance to corrosion by chemicals.

High electrical insulation properties giving protection against bi-metallic contact corrosion.

Typical Switch point Layout



Typical heater Clips for use on UIC60 Rail Profile

