



Thermit® Welding Light Rail Services



Thermit® Welding (GB) Light Rail Services

Thermit Welding (GB) Ltd

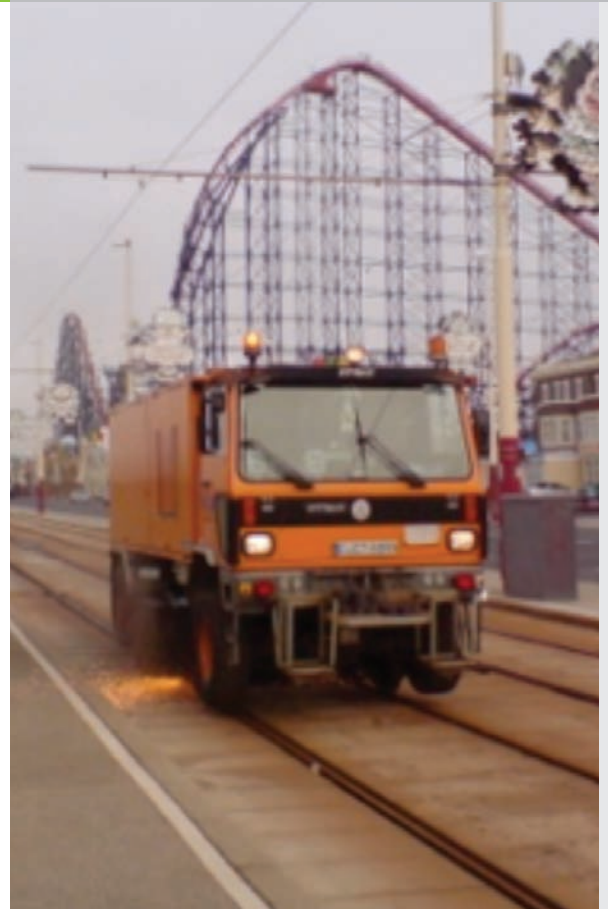
was formed in 1958 by Elektro-Thermit GmbH in partnership with Murex Ltd to manufacture and distribute welding processes under the Thermit® trademark from the premises in Ferry Lane, Rainham, England.

Elektro-Thermit GmbH had been established by the Goldschmidt company in 1919. In the year 2000 ownership of the company came under the control of the Goldschmidt family and was combined with Goldschmidt's international business to form the Goldschmidt Thermit Group.

The consolidation of the international businesses, has meant that the individual companies in the group have been allowed to develop; in addition to their core businesses, such as aluminothermic track welding, an ever increasing range of specialist contract services which enjoys the support of the world-wide Goldschmidt Thermit Group.

The products, services and experience developed throughout the group are being extensively utilised throughout the UK, through our technical services division Thermit® Welding Services (TWS).

With the undoubted success and increasing popularity of light rail systems, which in turn increases the need of the Track Engineer for efficient and cost effective solutions; Thermit Welding (GB) Ltd through TWS are constantly developing new products and techniques to enable the Track Engineer to maintain the system efficiently and economically.



Thermit® Welding

Head Repair & SRZ Welding Process

Head Repair Process

The engineers at Thermit Welding (GB) Ltd have with the support of Network Rail, developed the Thermit® Head Repair (HR) Process for the repair of plain line rail head defects including small isolated flaws which have been detected by visual or ultrasonic inspections.

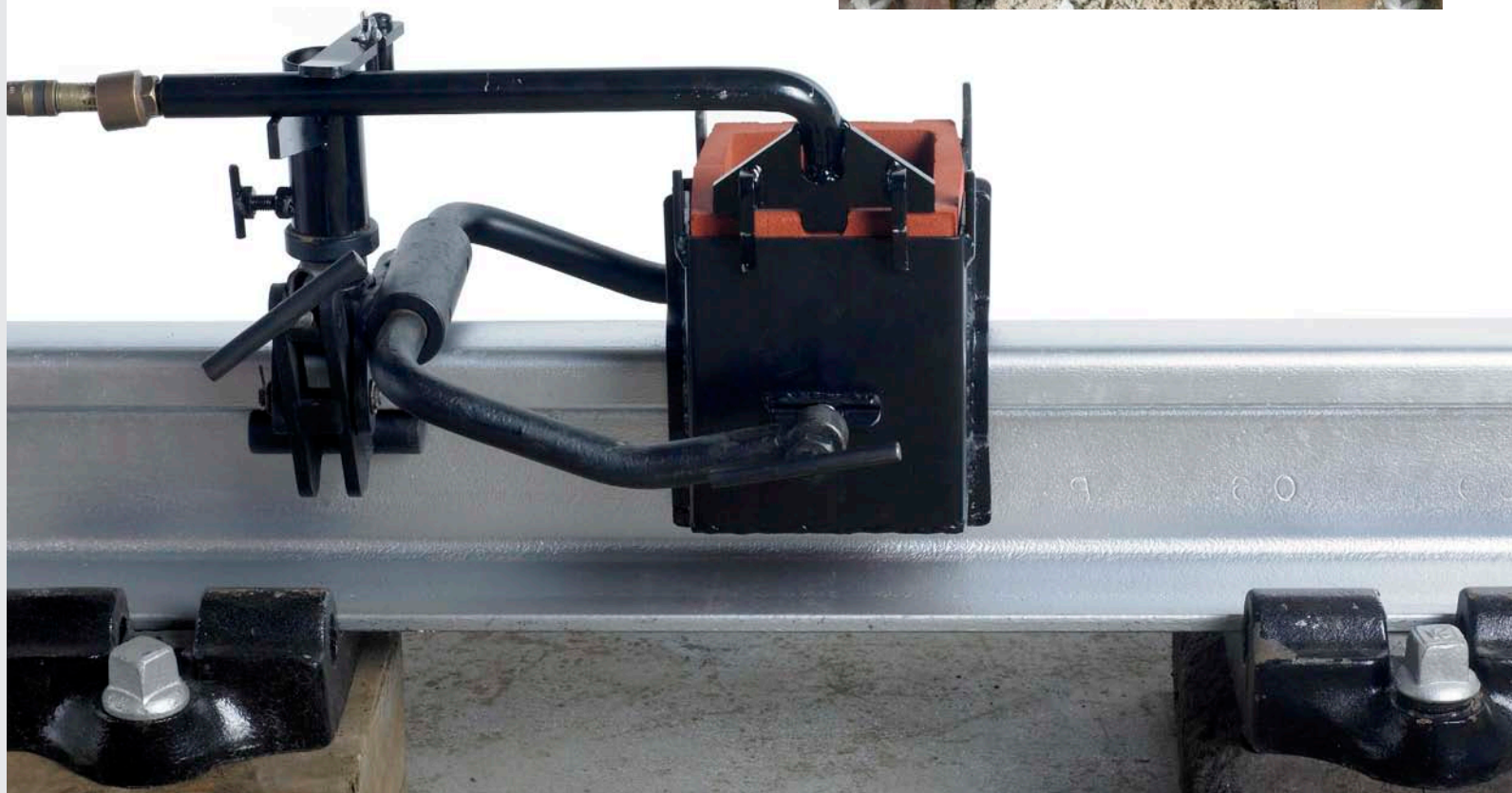
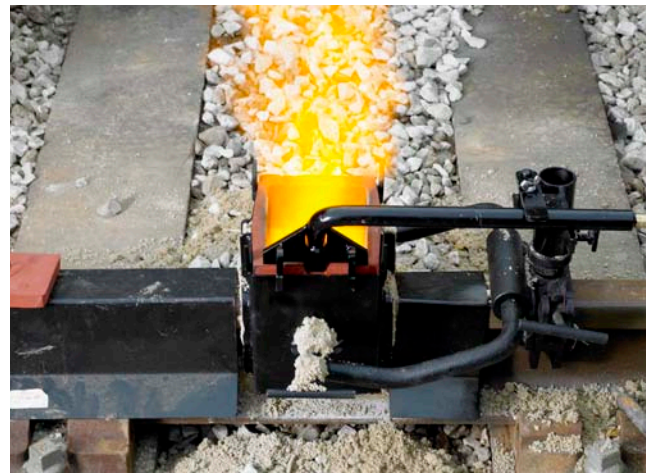
We believe this will have wide use in the repair of "squat" and "wheelburn" type defects, thus avoiding the expense of installing short closure rails.

**This development was awarded the
"Innovation Award 2009"
at the National Rail Awards.**

Full details of the process are described in our Thermit® Head Repair (HR) Process brochure.

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Thermit® Welding Track Measurement

Thermit's capabilities for non-destructive measurement of rail include VERSE which allows stress free temperature (SFT), measurement without having to break into the track.

It is particularly suited for:

- Sites where no stressing records are available
- Following lifting or slewing of the track
- Sites where no rail movement was recorded during rail replacement
- Auditing prior to handback
- Straight or curved track

We have several electronic devices for measuring and monitoring the running surface and profile of rail. These devices can be employed before, during and after work such as rail grinding and/or rail repair and are ideal for the track engineer to update records whenever required.

Straight-Edge Compact

The Straight-Edge Compact (SEC) will survey the geometry of the rail head. It employs a magnetic non-contact device which rapidly covers the length of the device, and translates the information into a readable form which is displayed on the screen and is also downloadable for hard-copy records of the running surface and running edge. The SEC is lightweight for ease of portability and use and weather resistant.

Railmonitor-lite

The Railmonitor-lite is a multi-functional device, which allows the operator to determine the profile of the rail head against a profile template. It highlights any of any areas of concern can be made for future reference and correction with a download facility for record keeping is standard. The Railmonitor-lite is easily transportable and is deployed very quickly.



Thermit® Welding Ballast Bonding

Thermit Welding (GB) Ltd has offered Ballast Bonding as an installation service for over 10 years, stabilising track laterally, creating transitions and protecting embankments; stabilisation of switches is a speciality.

The viscosity of the materials allows the ballast to be 'point-bonded', thus maintaining the drainage capability of the bonded area; in fact due to the protection afforded by the bonding materials drainage of the ballast surface actually improves.

Installation of the bonding materials is accurate, ensuring no contamination of track components.

Most installations are quick and are usually within engineering hours with minimum disruption to the ballast (e.g. levelling).



GTG

Rail Grinding

SRZ Welding Process

The Thermit® SRZ welding process was developed for the welding of grooved rail.

The process uses either two or three piece moulds, which are available for a range of grooved rail sections; we can also supply moulds for a small range of composite joints between grooved and conventional rail profiles.

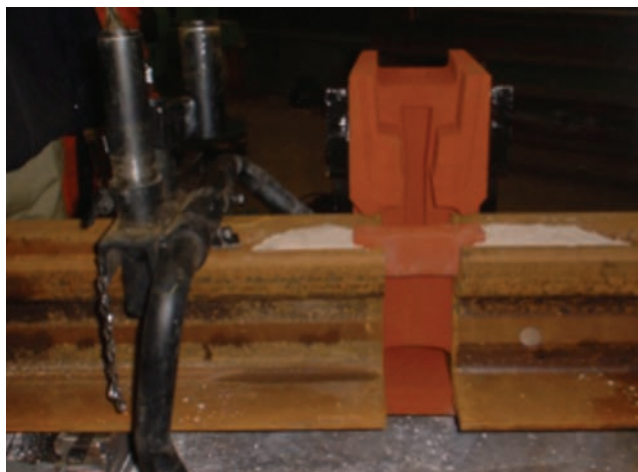
Recently developed is our L50 composite which is available for the following:

Ri59/Ri60 to S49 and Ri59/Ri60 to 54E1

Semi-automatic welding processes to effect repairs on embedded rail has been employed by GTG on numerous tram systems throughout the world.

In addition to its own development program, TWS actively engages with partners to ensure that its equipment and techniques can meet the needs of its clients.

Ongoing work has seen the development of switch-blade restoration techniques, in addition to work on crossing noses, check rails and gauge corner restoration.



Rail Grinding

The GTG Rail Grinding service is used extensively by Tram systems throughout mainland Europe, many of our VM-8000 series vehicles spend many months in servicing all of the major cities in one country.

The quality of work produced by our teams, is recognised by track engineers seeking to give their clients the best possible ride comfort.



www.thermit-welding.com



Thermit Welding (GB) Ltd.

87 Ferry Lane, Rainham
Essex
RM13 9YH
England

Telephone: +44 (0)1708 522626
Fax: +44 (0)1708 553806
info@thermitwelding.co.uk