

Technical Services

Our team of Chartered and Graduate Engineers from mechanical, metallurgical and aerospace backgrounds have wide ranging experience of railway track work product and system development, design and manufacture. We develop new products and optimise existing ones for clients around the world – including several national infrastructure owners. We consider risk management a fundamental aspect of good design, and we use industry best practice engineering safety management principles in all of our development work.

OUR KEY SERVICES AND CAPABILITIES INCLUDE:

- Switches, Crossings and Turnout Design
- Switch Performance Optimisation
- Cast Manganese Product Modelling Methods and Metallurgy Optimisation
- Crossings can be supplied solution treated or explosively depth hardened to suit your needs
- Molten Metal Mould Filling and Solidification Using Specialist Software
- Efficient New Product Development and Introduction
- Wheel Rail Interface Optimisation and Structural Integrity Optimisation, which reduces maintenance and extends service performance

PROVIDING A TECHNICAL SERVICE

Over and above using our technical capability to support and develop our production programme, we can offer a range of skills and expertise to support our clients development of specifications and products. For more information about our technical services, please contact prsuk.sales@progressrail.com.

SWITCH PERFORMANCE OPTIMISATION

Using our in-house analysis tools, we can fine tune the flexural behaviour of switch rails – increasing reliability through reducing the effort required from the points operating equipment to position the rails.

MECHANICAL ANALYSIS

Assessment of product lifecycle, expected performance and operation and maintenance requirements using; classical techniques, Finite Element Analysis, practical testing and empirical data from over 100 years of manufacturing experience.

PRODUCT DESIGN

Using our 3D CAD software, we create and assure product designs that are optimised for manufacture. Our designers are experienced in products suited to the demands of a wide range of railway environments.

CAST MANGANESE PRODUCTS

Modelling, Machining, Methods and Metallurgy: Our engineers have the tools, skills and experience to design cast manganese products from concept through all stages of the manufacturing process to deliver geometries and structures that exceed the criteria expected of them from rail standards around the world.

