CHNICAL

ASSEMB

Re SYSTEM

PRODUCT INFORMATION

PANDROL





PANDROL PRESENTS:

Re SYSTEM

The PANDROL Re SYSTEM delivers an assembly with faster installation times and a reduced number of components when compared to a traditional e-clip equivalent. This can lead to more productive engineering possessions for track refurbishment.



With the PANDROL Re SYSTEM, the rail pad is supplied with the side post insulators already attached, reducing time and labour when laying out and installing the components on site. The Re SYSTEM is also supplied with toe insulators already in place on the toe of the clip, again reducing installation time and the number of loose components on site. For more information about the benefits of the Re SYSTEM visit Pandrol.com

LEARN MORE >



The PANDROL Re SYSTEM adopts the two-part insulator concept that was developed with the PANDROL FASTCLIP system.

Separating the insulator into two parts has demonstrated greater component life for this vital element of the rail fastening assembly. The separate parts can be made from the same or different materials to further tune track performance.

Components:

- 1. PANDROL Re Clip with integral toe insulator
- 2. Rail Pad with integral side post insulators
- 3. Cast SGI shoulder (Existing or new component)

As with all PANDROL fastenings, the PANDROL Re SYSTEM is backed by many years of worldwide experience, and an unmatched depth of technical understanding from PANDROL'S technical engineers.



INSTALLATIONS



Installation on Network Rail at Bawtry. Speed 200 km/hr, and 25 T axle loads.



140 m installation at Nivelles, Belgium. Re1800 fastenings shown on a 340 m curve radius.

INSTALLATION PROCESS

The PANDROL Re SYSTEM installs on new or existing PANDROL e-clip or PR clip concrete sleepers. It can also be installed on steel sleepers, baseplates and turnouts.

The system is optimised for installation during rail change operations where the fastenings are replaced, but can also be used on loose sleeper replacement projects.



Special shaped pad with side post insulator for assisting rail threading.



Pads designed to facilitate packaging and potential automation.

FEATURES OF ASSEMBLY

RETROFIT

The PANDROL Re SYSTEM retrofits on existing PANDROL e-clip and PR clip assemblies.

COMPONENT WEAR

Improved durability of insulators by separating function of toe and sidepost insulator.

EFFICIENCY GAINS

By providing side post insulators and rail pads as single components a number of efficiencies are created.

- Fewer components to handleOpportunity to mechanise pad
- installation
- Eliminates individual placing of insulators
- Facilitates easier rail threading

OPTIONAL RAIL PADS

Rail pads can be provided in different materials and stiffness, such as EVA, grooved rubber, studded rubber, PU etc.

HEAVY HAUL

Heavy Haul applications can be provided, consult PANDROL for details.



TECHNICAL SPECIFICATION

PANDROL

Re SYSTEM

- Suitable for use on light rail, metro, general main line, high speed and heavy axle loads
- Suitable for use on concrete and steel sleepers
- For all other applications please consult PANDROL

Application data (Standard products – special variants may differ)								
Rail inclination	Provided in the sleeper for all rail inclinations							
Pad type	Please consult PANDROL for appropriate pad types against operating requirements							
Typical applications	Light rail, Metro, General main line, mixed traffic, heavy haul and high speed							
Clip Type	Re1600, 1800 and 2000 series							
EN 13481-5 Track Category	Cat A	Cat B	Cat C	Cat D	Cat E			
Maximum Axle Load*	130 kN	180 kN	260 kN	260 kN	For max axle			
Minimum Curve Radius*	40 m	80 m	150 m	400 m	load/radius please consult PANDROL			

* For Special applications consult PANDROL

Typical performance data* As identified by Track Category EN 13481-1									
	Re1600 Series	Re1800 Series	Re2000 Series	Test Method	Remarks				
Assembly static stiffness	>70 kN/mm	>70 kN/mm	>70 kN/mm	EN 13146-9:2011 Cat A/B/C/D/E					
Assembly dynamic stiffness	>80 kN/mm	>80 kN/mm	>80 kN/mm	EN 13146-9:2011 Cat A/B/C/D/E	Dependent upon pad selection				
Impact load attenuation	>15%	>15%	>15%	EN 13146-2:2011					
Electrical Insulation	>5 kΩ	>5 kΩ	>5 kΩ	EN 13146-5:2012					
Nominal toe load	900 kgf	1000 kgf	1250 kgf	Clip driving fixture					
Clamping force	>14 kN	>16 kN	>20 kN	EN 13146-7:2012					
Creep resistance	>7 kN	>9 kN	>9 kN	EN 13146-1:2012					

COMPLIANCE WITH STANDARDS:

PANDROL Fastenings are tested against standards published by the European committee for standardisation (CEN).

NOTE:

PANDROL is an innovator and designer of bespoke rail fastenings. The data shown above is indicative of typical performance, but is naturally dependant on external factors. Should you have different requirements, please contact us to discuss tailoring products to suit local operating conditions. The technical information given in this brochure was correct at the time of printing, however the company undertakes a continuing programme of research and development and improvements may since have been introduced.

PANDROL TRACK SYSTEMS

63 Station Road Addlestone, Surrey KT15 2AR England

Telephone: +44 (0)1932 834500 e-Mail: info@pandrol.com Website: www.pandrol.com



ISSUE 2 2014