

PANDROL

# Re SYSTEM



PRODUCT INFORMATION



RAIL FASTENING SYSTEM:

# Re SYSTEM

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

Find more information about the Re SYSTEM at [Pandrol.com](https://Pandrol.com)

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The PANDROL Re SYSTEM adopts the two-part insulator concept developed by PANDROL for the FASTCLIP system.

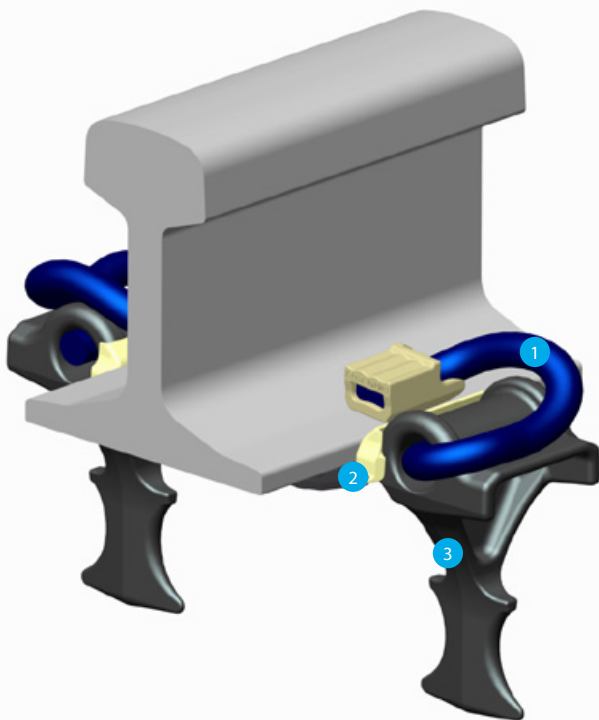
Separation of the insulator provides longer component life for this vital element of the rail fastening assembly. Insulator parts can be made from a range of materials to further tune track performance.

#### Components:

1. PANDROL Re clip with integral toe insulator
2. Rail pad with integral side post insulators
3. Cast SGI shoulder (New or existing component)

Re SYSTEM is a rail fastening evolution based on decades of worldwide experience, and the unmatched knowledge and understanding of PANDROL technical engineers.

Re SYSTEM rail pads are supplied with side-post insulators already attached. This reduces time and labour when laying out and installing components on site. Re SYSTEM is also supplied with toe insulators already in place on the toe of the clip. This further reduces installation time and the number of loose components on site.





## INSTALLATIONS



# UK

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



# BELGIUM

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

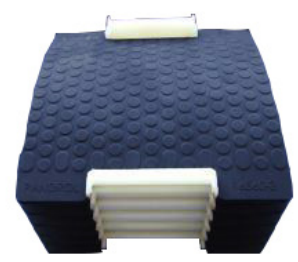
## INSTALLATION PROCESS

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

Re SYSTEM is optimised for installation during rail change operations, where the fastenings are replaced. It is also suitable for loose sleeper replacement projects.



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



Re SYSTEM pads designed for easier packaging and potential automation.

## FEATURES OF ASSEMBLY

### READY TO RETROFIT

Re SYSTEM can be easily retrofitted to existing PANDROL e-clip and PR clip assemblies.

### HIGHLY DURABLE

With separated toe and side-post insulator functions, Re SYSTEM provides greatly improved insulator durability.

### EFFICIENCY GAINS

Re SYSTEM delivers side-post insulators and rail pads as single components, to create valuable efficiencies:

- Fewer components to handle
- Opportunity to mechanise pad installation
- No need to individually place insulators
- Easier rail threading

### CUSTOMISED RAIL PADS

Re SYSTEM rail pads can be supplied in different materials and stiffnesses. Examples include EVA, grooved rubber, studded rubber and PU.

### HEAVY HAUL APPLICATIONS

Re SYSTEM is also suitable for heavy haul applications. Please consult PANDROL for details.

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- Suitable for light rail, metro, general main line, high speed and heavy axle loads
- Works with concrete and steel sleepers
- For further 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 13481-2 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 load/radius please consult PANDROL
Minimum Curve Radius*	40 m	80 m	150 m	400 m	

\* 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	Dependent upon pad selection
Assembly dynamic stiffness	>80 kN/mm	>80 kN/mm	>80 kN/mm	EN 13146-9:2011 Cat A/B/C/D/E	
Impact load attenuation	>15%	>15%	>15%	EN 13146-3:2012	
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 a provider of innovative custom rail fastenings. Data in this document indicates typical performance. Actual performance is dependent on a range of external factors. Please contact us to discuss how PANDROL can tailor products to suit local operating conditions and specific requirements. Technical information in this document was correct at time of printing. Improvements may since have been introduced as a result of our continuous research and development programmes.

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