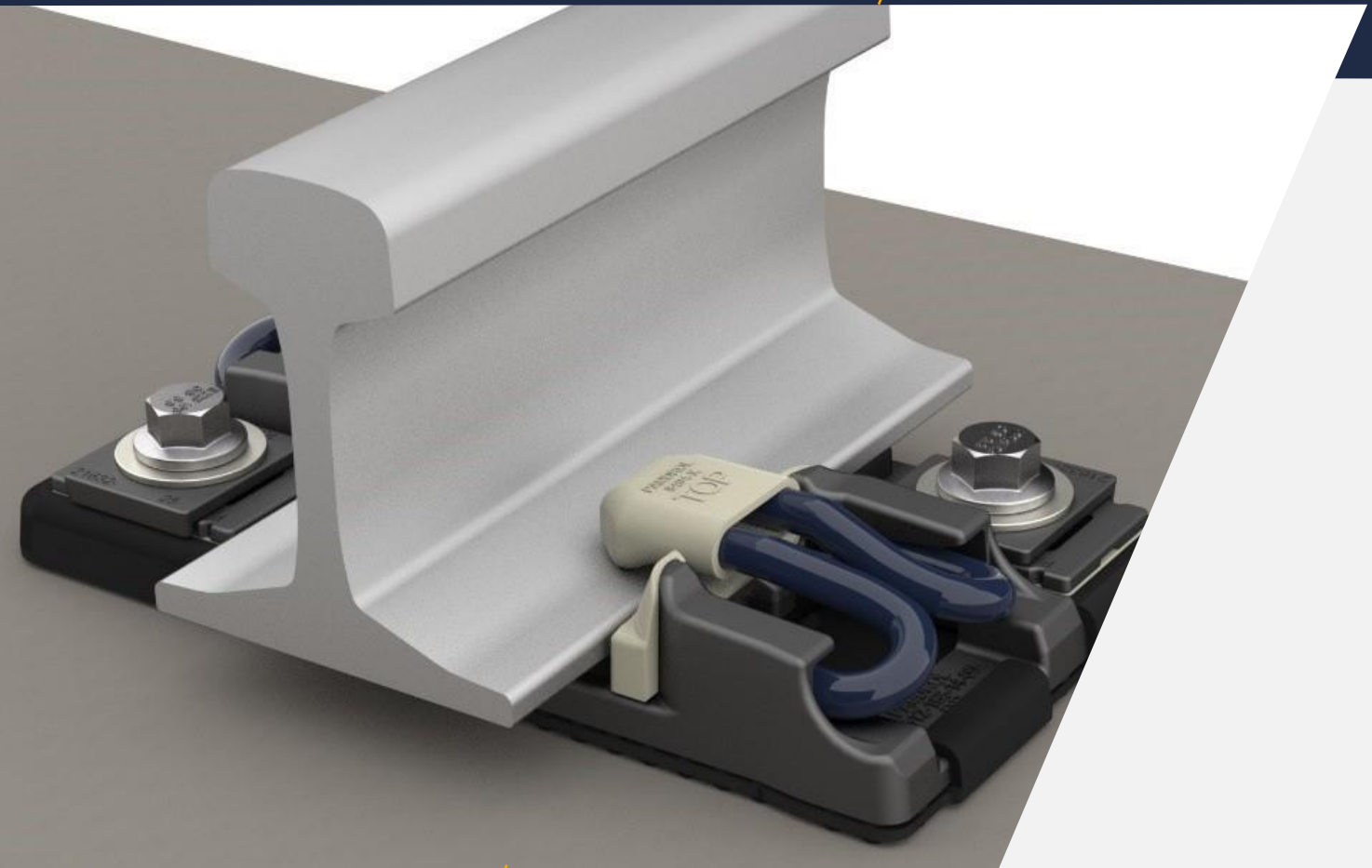


PANDROL

FASTCLIP Baseplate Assembly

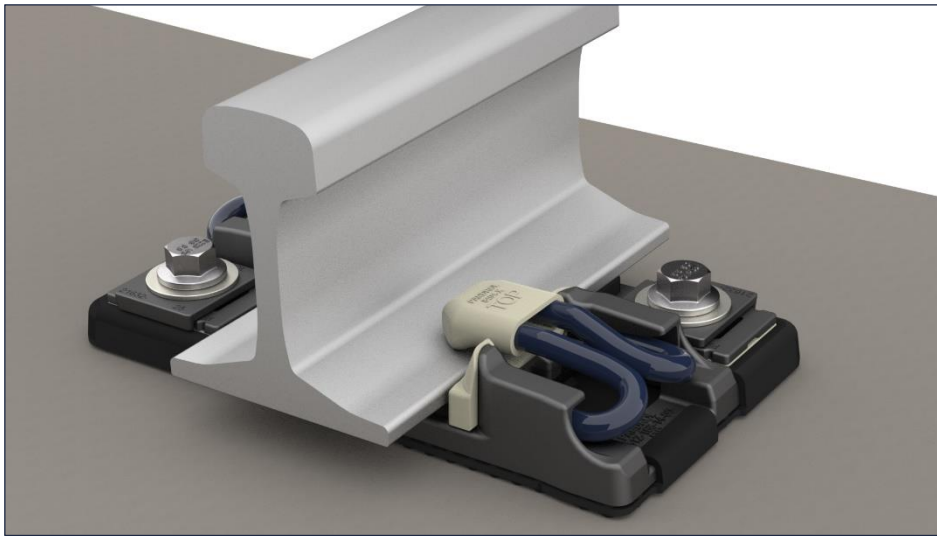
PRODUCT GUIDE



001-24_D
2nd February 2021

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General Description



The PANDROL FASTCLIP Baseplate assembly is intended for use on non-ballasted track, where the fastening system is required to provide a high level of resilience between the rail and the track foundation and where any adjustment that is required to compensate for track settlement is to be made within the fastening system.

The PANDROL FASTCLIP Baseplate assembly can be supplied to site or the pre-cast concrete factory in the form of pre-assemblies, the components to be cast into the concrete (where relevant) and the screw and washer components. The pre-assembly is captive and can be lifted in position on the slab panel as a single unit. The screws and washers are then added, followed by tightening of the screws. This completes the build of the fastening system, and in the case of pre-cast concrete applications making them fully captive on the slab panels and ready for transport to the track construction site.

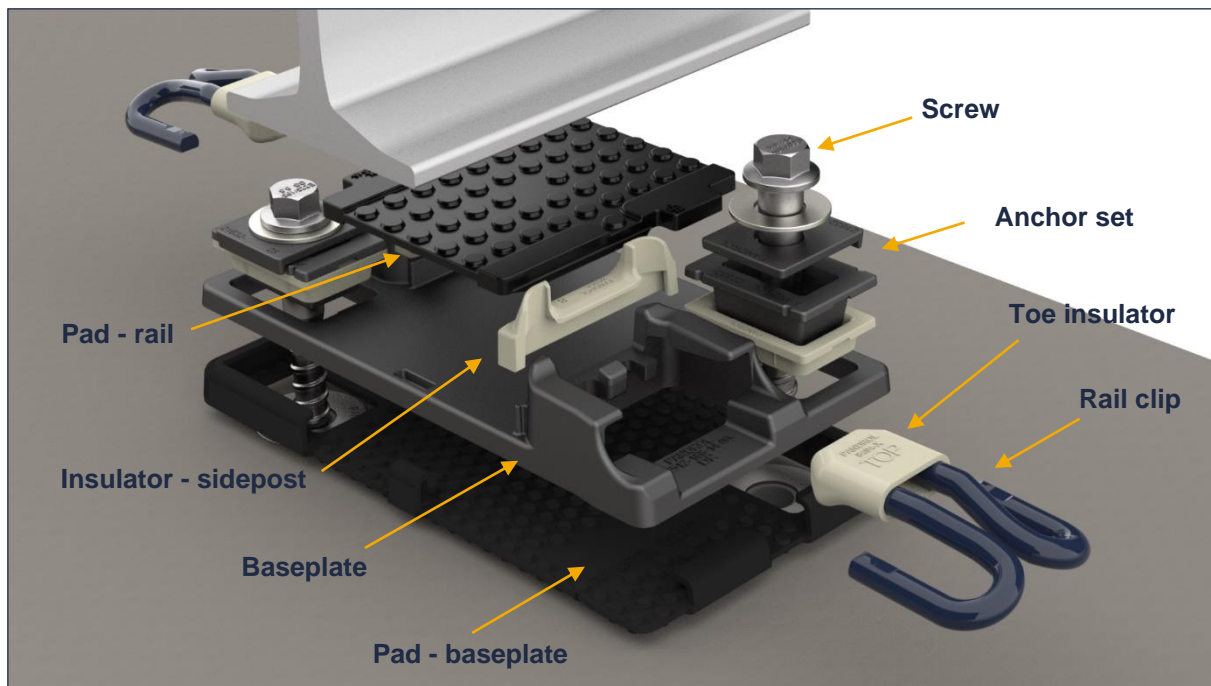
Technical Features

FASTCLIP Baseplate Assembly	Inclination provided in the baseplate or concrete as required for non-ballasted tracks
Lateral adjustment	Track gauge adjustment of +/-24mm is achieved in the baseplate
Vertical adjustment	Up to + 70 mm, by means of fitting shims underneath the assembly
Track structure interaction	Zero Longitudinal Restraint (ZLR), joint bar and low toe load options available.

FASTCLIP FCB		Operating Conditions				General Suitability	
CEN Cat	Track Type	Typical Rad	Typical Axle	Max Axle	Max Speed	Assembly resilience (kN/mm)	
		(m)	(kN)	(kN)	(km/h)	50 - 100	15 - 50
A	Light Urban / Tram	80	100	130	100	✓	✓
B	Light Urban / Metro	100	160	180	140	✓	✓
C	Main Line	400	225	260	250	✓	✓
D	Main Line, High Speed	800	180	260	350	✓	✓

Special Applications and Upgrades					
Joint Bar	ZLR	Low Clamping Force	High Clamping Force	Corrosion Protection	UV Protection
✓	✓	✓	✓	✓	✓

Standard Components

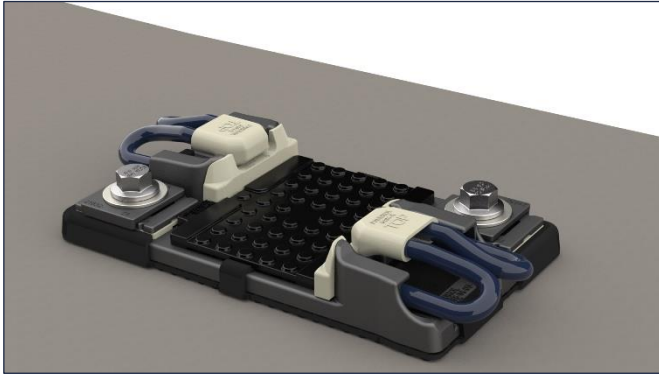


Component (per railseat)	Remarks	Part No.
FASTCLIP rail clip (2)	Spring steel	Refer to assembly drawing
Toe insulator (2)	HVN	
Baseplate (1)	SGI	
Pad - rail (1)	Rubber, EVA options as required	
Insulator - sidepost (2)	HVN	
Pad - baseplate (1)	Rubber, EVA options as required	
Screw and anchor set (2)	Configuration dependant on application	

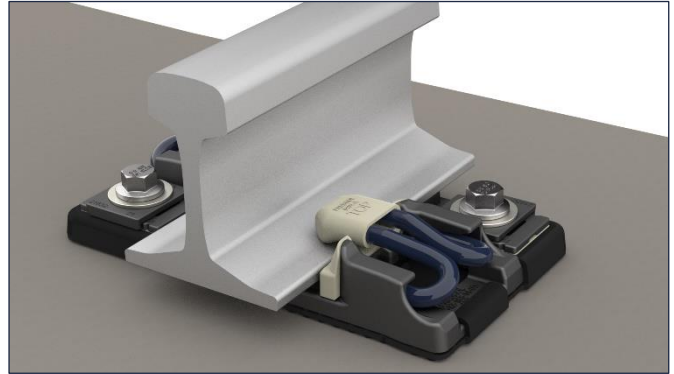
Construction

PANDROL FASTCLIP Baseplate is normally supplied to the track construction site with all components held captive, either independently or already on the concrete element and with the rail clips set in parked position. Once in position and the rail is threaded, the rail clips are pushed from the parked position to the installed position, either mechanically or manually.

Pre-assembled unit – clips in parked position



Rail threaded and clips fully installed



The system lends itself to various construction methods. Contact PANDROL for full details.

Construction Methods

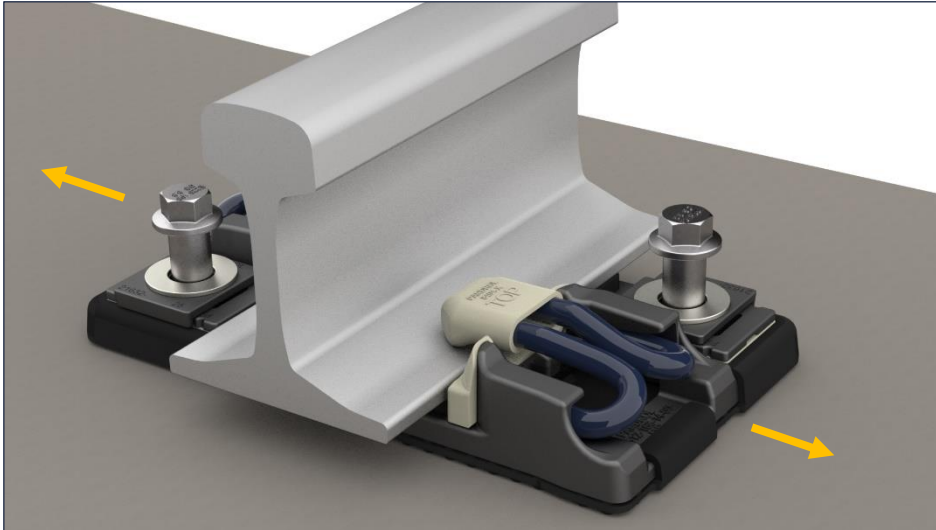
Method	Optimised	Alternative	Comments
Pre-cast block/sleeper	✓		
Pre-cast plinth/slab	✓		
Top down wet pour		✓	Optional methods exist. Consult PANDROL
Top down drill/grout		✓	Consult PANDROL
Retrofit existing system			Consult PANDROL



Adjustment

Lateral

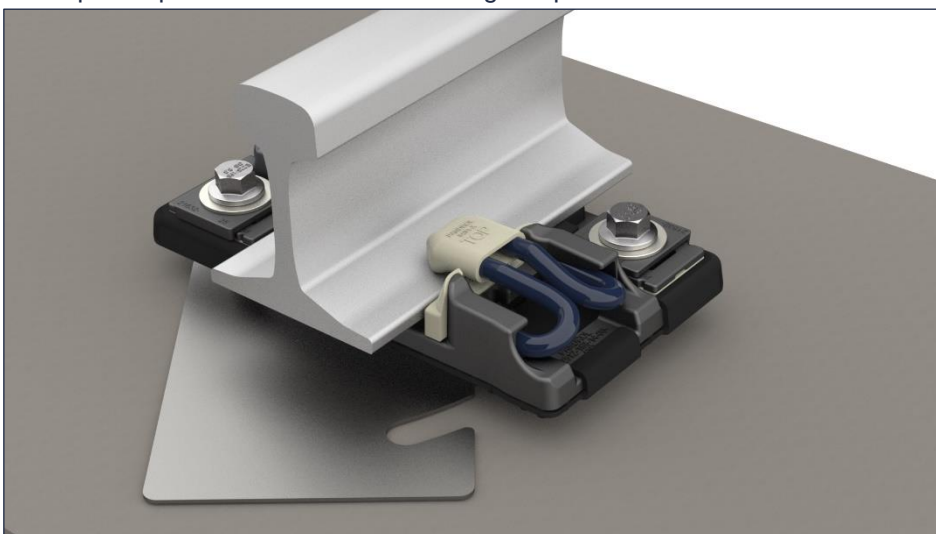
The FASTCLIP Baseplate provides stepless adjustments in the range of ± 12 mm per assembly (or ± 24 mm on track gauge). Lateral adjustments can be made quickly and easily. No components need to be exchanged and there is no requirement to disassemble the fastening system. The screws are released, and the baseplate position is adjusted accordingly.



Vertical

Vertical adjustment of the rail can be achieved using height adjustment shims. This can be done at either the installation or maintenance stage. Shims are available for FASTCLIP baseplate assemblies which can be installed without prior removal of the baseplate. Shims are supplied in HDPE, mild steel and cast iron depending on specific assembly configuration and thickness required.

The standard vertical adjustment procedure, which is expected to cover most adjustments that need to be made, only requires untightening of the screws and insertion of height adjustment shims. Exceptional vertical adjustment will require replacement of screws for longer equivalents.



Handtools and Machinery

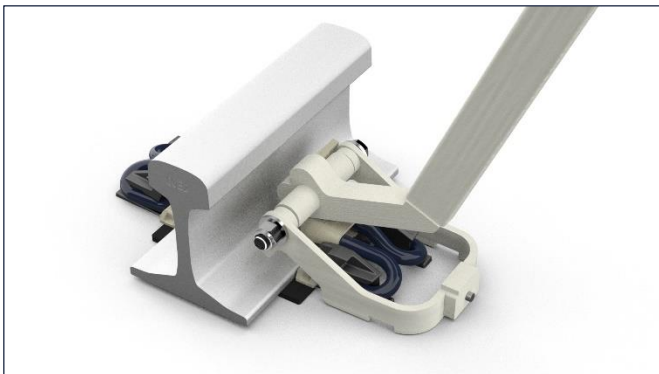
Handtools

The FASTCLIP Baseplate assembly uses two different handtools; one tool for installation and one tool for extraction. Refer to the Operation and Maintenance Manual for all handtool information.

Clip installation



Clip extraction



Machinery

A range of automated machines are available for larger scale FASTCLIP Baseplate installations.





Safety, Life Cycle and Environmental Information

SAFETY - PANDROL Fastener components are safe to handle during installation and use based on intended and expected service conditions. Contamination during service from railway traffic (passenger and freight) is expected, so appropriate precautions (e.g. the use of personal protective equipment, PPE) are recommended when inspecting / replacing fastener components in this condition. Safety warnings are included on PANDROL brand handtools.

ENVIRONMENT - PANDROL Fastener components include recycling codes (e.g. plastic insulators, bushes, shims and pads) and can be readily recycled (e.g. cast iron). Local regulations should be respected when disposing of packaging materials and when disposing of worn / life expired fastener components.

PANDROL

Find out more at

pandrol.com

PANDROL Fastenings
Gateford Road
Worksop, Notts
S81 7AX
UK

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