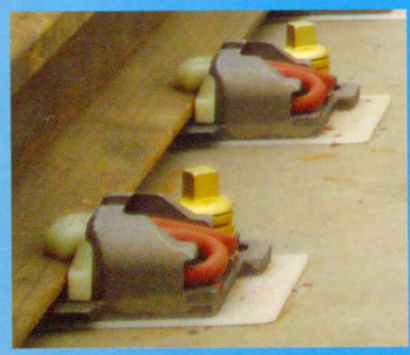
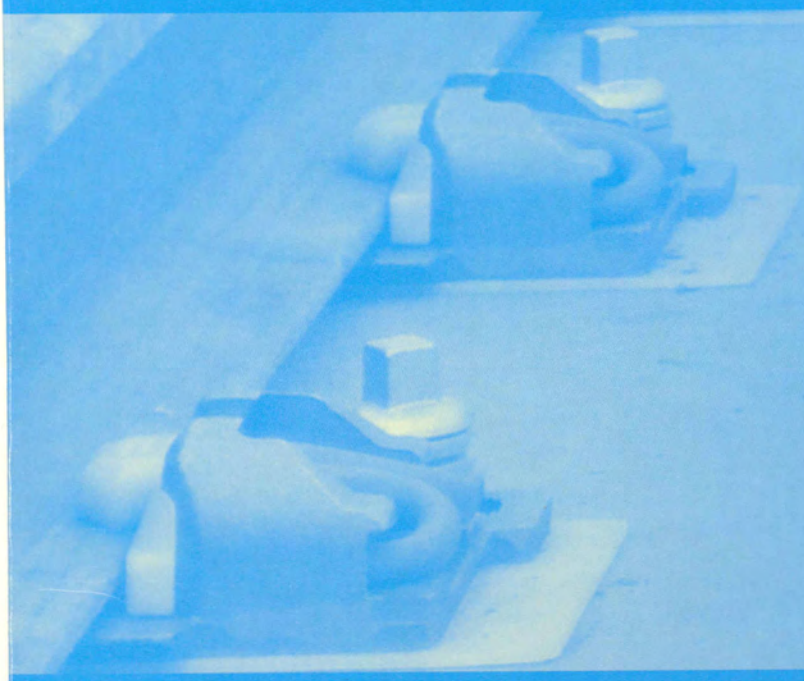
# PRODUCT INFORMATION

## PANDROL **SFC**





PANDROL®

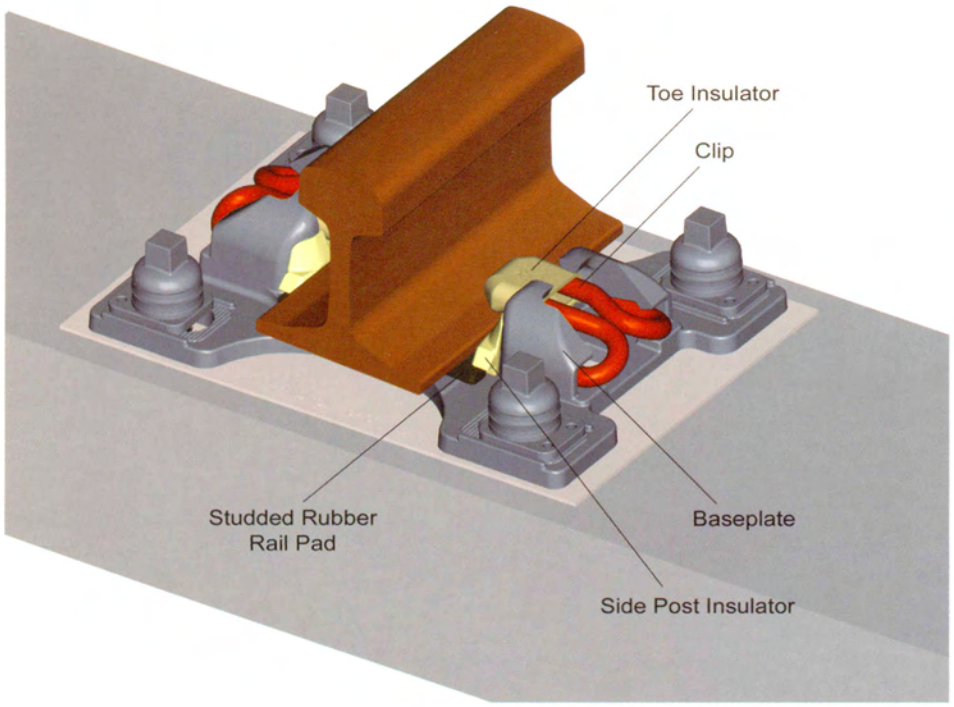
## PRODUCT INFORMATION

The PANDROL SFC (Single FASTCLIP) baseplate system has been designed to easily transfer the advantages of the PANDROL FASTCLIP system to slab track applications.

The design allows full advantage to be taken of the PANDROL FASTCLIP captive fastening system, making it an ideal product for non-ballasted trackforms where the speed and ease of installation and alignment, both in the initial construction and subsequent realignment, is critical.

## CONSTRUCTION OF ASSEMBLY

**Pandrol SFC** baseplates are delivered to site as pre-assembled units.




## COMPONENTS

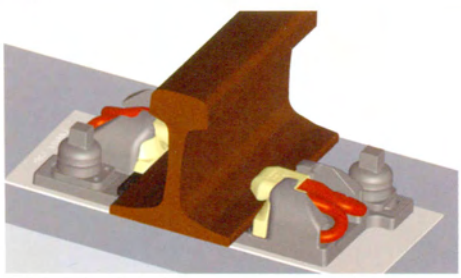
- Clip and Toe Insulator
  - 250 - 1250kgf nominal clamping force, high deflection
  - Integral toe insulator to reduce rail contact stresses, improve electrical resistance and insulator life.
- Side post insulator made from high viscosity nylon
- Cast ductile iron baseplate
- Studded natural rubber rail pad
- Conforming pad

# PANDROL **SFC**

## FEATURES OF ASSEMBLY

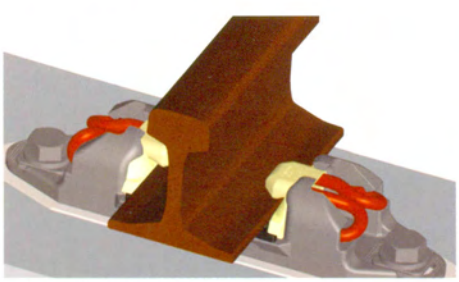
Pandrol SFC baseplates are available in three variants:

**2-Hole Offset Baseplate:** designed for slab track, low axle load or shallow curve applications where a lightweight baseplate is required.



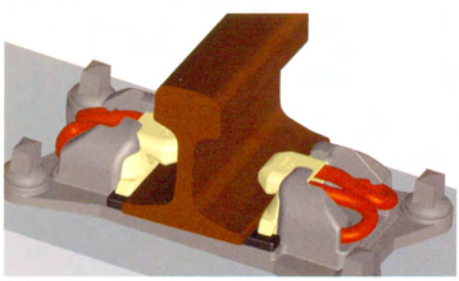
2-Hole Offset Baseplate

**2-Hole In-line Baseplates:** designed for concrete sleepers embedded in slab track, such as the Rheda 2000 system, where anchor bolts must be in-line to avoid the steel reinforcement.



2-Hole In-line Baseplates

**4-Hole Baseplates:** designed for installation on slab track with high axle loads, tight curves, or where compatibility with 4-Hole PANDROL VIPA or VANGUARD baseplates is required.



4-Hole Baseplates

### Fully Pre-assembled

PANDROL SFC baseplates are supplied to the track site as fully pre-assembled units.

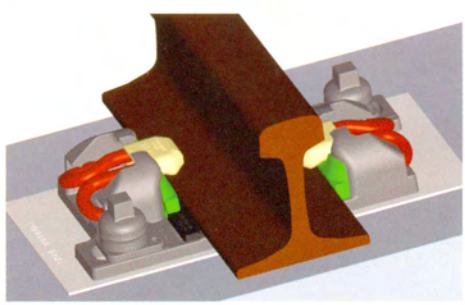
### Adjustability

Lateral adjustment of up to 12mm is possible by the use of slots in the baseplate and serrated washers.

Vertical adjustment of up to 50mm is possible through the use of shims under the baseplate.

### Dual Rail / Gauge Change

Change of rail section is possible through the use of different thickness side post insulators. The clip and rail pads remain captive throughout the rail change operation.



PANDROL Dual Rail Assembly

### Timber Sleepers

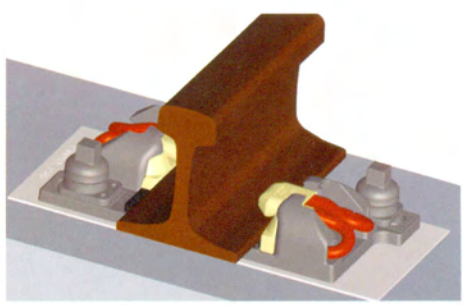
Non-adjustable versions of the 2-Hole Offset and 4-Hole SFC Baseplate are available for timber sleepers.

### Electrical Insulation

Electrical Insulation is provided by insulating the rail from the baseplate and the clips by the rubber rail pad and nylon and side post insulators.

### Anchorage

Pandrol considers the hold-down method as an integral part of the rail fastening design and is happy to advise accordingly for specific applications.



PANDROL Dual Rail Assembly

## INSTALLATION ON SITE

Two different methodologies exist for track construction - top down and bottom up. PANDROL SFC baseplates can be installed using either method.

## TECHNICAL SPECIFICATION

# PANDROL **SFC**

| **Application data** (standard products — special variants may be supplied for other applications) | |
|---|---|
| Rail inclination | Vertical / 1:40 / 1:20 |
| Clip type | Pandrol FASTCLIP FC1501 / FC1504 / FC1306 |
| Typical applications | Non-ballasted metro tracks; Main line bridges and tunnels; Steel bridges (for mitigation of re-radiated noise). |
| | Max axle load: 26 tonnes; Min. curve radius: no limit. |
| Typical rail sections | 60E1 (UIC60); 56E1 (BS.113A); 54E1 (UIC54); "Dual rail" variants are available. |
| Vertical adjustment | Total range typically 36mm (up to 50mm possible) |
| Lateral adjustment | Typically ± 12mm |
| No. of anchors | 2 or 4 |
| Type of anchors | Cast-in inserts and bolts / Anchor bolts / Screwspikes & dowels / etc. |

**Suitable for use on:** Light Rail, metro and general main line tracks.

Normally for use on concrete, non-ballasted tracks. May also be used on concrete or wooden sleepers or bearers.

Suitable for "top down" or "bottom up" concrete track construction.

| **Typical performance data** | | | |
|---|---|---|---|
| | **Value** | **Test method** | **Remarks** |
| Static stiffness | 45 MN/m | EN13146-4: 2002 | Assembly secant stiffness between 5kN and 80kN |
| Dynamic stiffness | 70 MN/m | EN13481-5: 2002 | Assembly secant stiffness between 5kN and 80kN at 4 Hz |
| Clamping force (FC1501/FC1504) | > 16 kN | EN13146-7: 2002 | Nominal toe load = 10 kN per clip |
| Clamping force (FC1306) | ~ 8 kN | EN13146-7: 2002 | Nominal toe load = 5 kN per clip |
| Creep resistance (FC1501/FC1504) | > 9 kN | EN13146-1: 2002 | |
| Creep resistance (FC1306) | ~ 5 kN | EN13146-1: 2002 | (Used with steel slip plate) |
| Electrical insulation | >20 k | EN13146-7: 2002 | Rail-to-rail, wet, on a concrete sleeper. |

### Compliance with standards

Pandrol SFC is fully compliant with the requirements of EN13481-5:2002.

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PANDROL
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