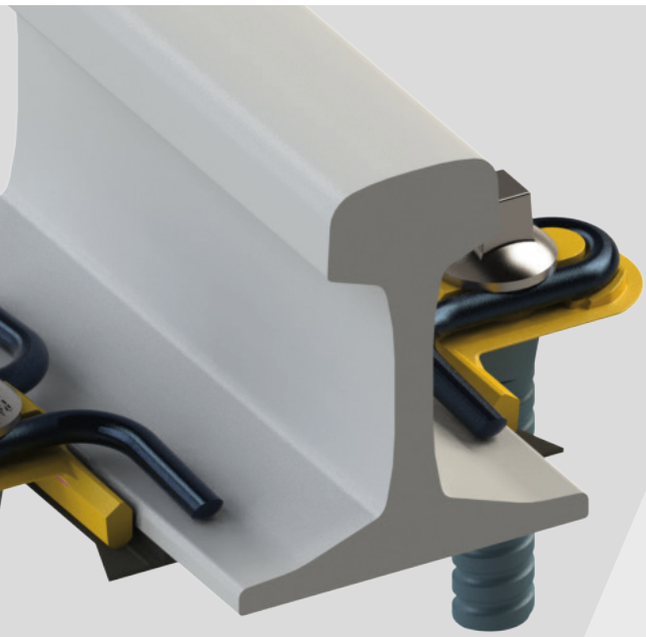
PANDROL
Partners in excellence

SD

Fastening systems

Adding Value

The SD System was selected over other threaded fastenings for the prestigious 'Grand Paris' in France and Tren Maya projects in Mexico.



Pandrol's SD is a pre-assembled threaded fastening solution for use in most track applications.
SD stands for 'Safe Driven' and is inspired by the system's efficient, controlled clip guidance from parked to in-service position.

Thanks to its ease of installation and low maintenance requirements, the SD is very economical compared to similar threaded fastenings. At the same time, the assembly is extremely versatile and offers enhanced technical performance.

SD is equally suitable for pre-assembly in the concrete sleeper manufacturing plant and for retrofitting to sleepers with other fastenings on existing track infrastructure.

TECHNICAL FEATURES

Captive fastening

SD sleepers are usually supplied to the track construction site as captive, fully pre-assembled units. All components in the assembly also remain captive during construction and maintenance activities.

'Switch on / switch off' function

The SD clip can be moved simply and quickly from the 'parked' position (in which it is held securely without intruding into the rail seat) into the 'service' position. With the screw loosened, the clip is simply pushed from one position to the other to either clamp the rail or release it.

Clamping force

The high elasticity of the SD clip ensures the correct clamping force. Consequently, a consistent longitudinal restraint is achieved automatically when screws are tightened until full contact is made.

Gauge adjustment

Accurate lateral rail adjustment is achieved by changing the guide plate insulators for different sizes in required increments.

Track-structure interaction

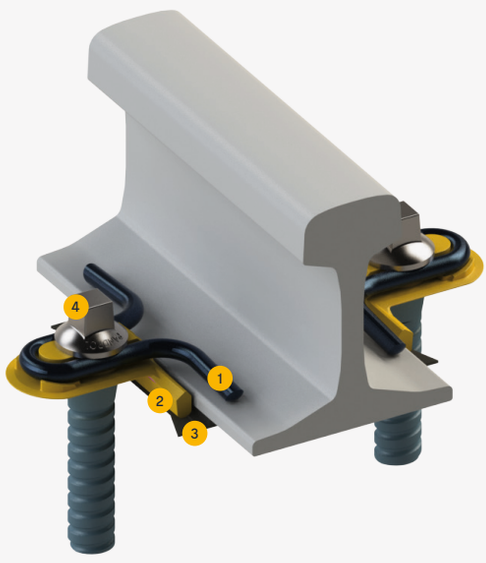
SD clips are available in low toe load and a zero longitudinal restraint (ZLR) configuration, typically for use on bridges and viaducts when track-structure interaction effects need to be dealt with in the rail fastening assembly.

SKL conversion

SD can be installed in an SKL-shaped rail seat, providing a simple retrofit upgrade.

ADVANTAGES

- The pre-assembled nature of the SD fastenings, the simple ‘switch on / switch off’ function and the option of mechanised equipment mean that very high rates of track construction and maintenance can be achieved. In turn, this results in huge savings in labour, as well as reduced distribution and handling costs during the whole lifecycle of the system.
- SD can be configured to suit a wide range of customer requirements for stiffness, adjustment, and rail clamping force.
- The SD clip can be designed for use in small spaces such as turnouts. This allows customers to keep the same type of fastening throughout the track.
- The clip is relatively low weight compared to similar products. This reduces its environmental impact without compromising on good performance.
- Available in a range of different configurations, highly adjustable and suitable for retrofitting, the SD System is a versatile solution that is suitable for most track infrastructure.



COMPONENTS

1. SD clips
2. Guide plate insulators
3. Rail pad
4. Anchor screws with concrete inserts

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