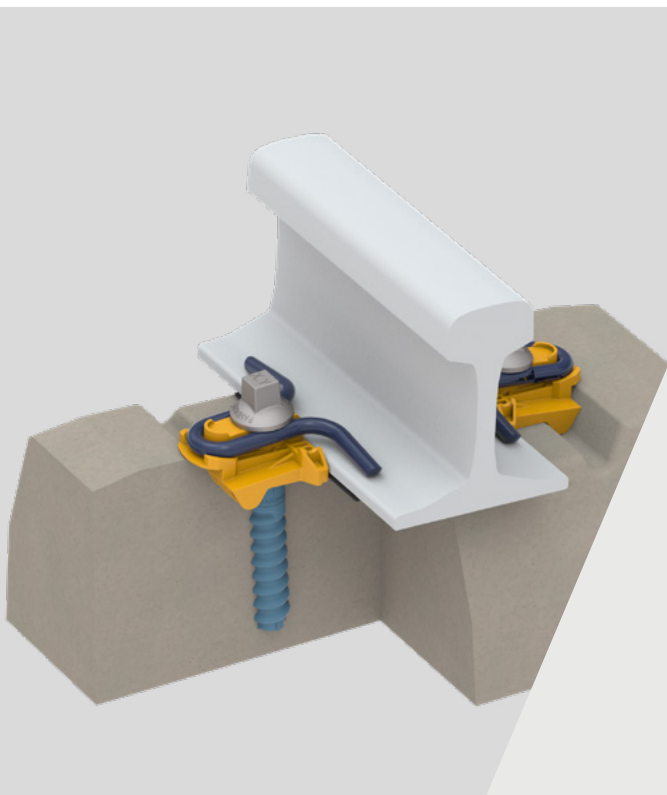


SD-RE

Fastening systems

Adding Value

A proven futureproofing fastening system that provides the ability to tune track performance quickly.



Pandrol's SD-RE is a durable and reliable threaded fastening solution that has been developed to fit in SKL shaped rail seats.

SD-RE can deliver higher rates of construction thanks to its efficient controlled clip guidance from parked to the in-service position.

The system is characterized by a more compact and robust design with lower carbon footprint. Its optimized geometry also enables automatic installation resulting improved efficiency and cost saving during installation and maintenance.

SD-RE also offers various advantages over legacy screwed systems, which include avoiding ballast entrapment in the fastenings and an improved sealing of the dowel to protect the sleeper.

→ TECHNICAL FEATURES

SKL conversion

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

Captive fastening

SD-RE sleepers can be supplied to sites fully pre-assembled, with all components remaining captive during construction and maintenance activities.

Switch-on/switch-off function

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

Eco-design

Compared to other screwed solutions, the clip system is 30% lower in weight. This reduces its environmental impact and logistics cost without compromising on performance.

Increased robustness & Lifecycle

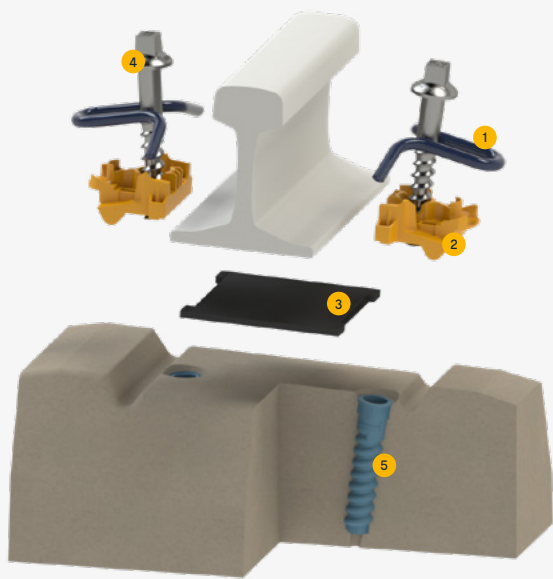
The clip has been modified to avoid frequencies where destructive amplitudes are generated, causing the clip to fail in fatigue. A significant increase in the natural frequency is key to increase the robustness of the tension clamp.

Innovative geometry

Pandrol SD-RE innovative geometry increase the contact area between clip and rail and solves ballast entrapment problem of SKL tension clamps.

→ ADVANTAGES

- The SD-RE system's pre-assembled captive fastening units and simple switch-on/switch-off function enable very high rates of track construction and maintenance. This efficiency translates into huge savings in labour, as well as reduced distribution and handling costs throughout the system's lifecycle.
- The switch-on/switch-off technology and use of mechanised equipment reduces the risk of injuries to track workers during installation.
- The versatility of the SD-RE design makes it suitable for most track infrastructure and enables it to meet a wide range of customer requirements for stiffness, adjustment, and rail clamping force. It can also be designed for use in small spaces such as turnouts, allowing customers to keep the same type of fastening throughout the track.
- The SD-RE is an extremely environmentally-friendly fastening solution. reducing the CO₂ footprint, logistics costs and environmental impact.
- The SD-RE system has been designed to avoid frequencies that cause fatigue and failure, resulting in a significant increase in the robustness of the tension clamp and a longer lifecycle.
- The innovative geometry of the SD fastening improves track stability, prevents dust and impurities entering the dowel, and solves the problem of ballast entrapment.
- The SD-RE can provide a simple retrofit upgrade for SKL fastenings.



COMPONENTS

1. SD clip
2. Guide plate insulators
3. Rail pad
4. Anchor screw
5. Dowel

→ SPECIFICATIONS

Assembly performance data	
Static Stiffness	>60 kN/mm
Longitudinal rail restraint	>10kN
Clamping Force	>20kN
Lateral adjustment	+/- 7.5
Vertical adjustment	+/- 10
Electrical resistance	>15.000 ohm
Gauge adjustment	+/- 15mm

→ LEARN MORE

