Rail Clamp

Track Equipment

Adding Value
The innovative design of the rail clamp ensures the bolts used do not bend under self-load.

“This simple design improvement can lead to cost savings over the lifetime of the clamp as the bolts can be reused.”

The Pandrol Rail Clamp is an innovative temporary rail joint clamp used prior to welding and to safeguard rail defects prior to repair.

The Rail Clamp has been engineered to eliminate many of the disadvantages of other traditional rail clamp designs and provides enhanced performance under all conditions of use.

The Pandrol Rail Clamp design is different to the legacy design and guarantees a positive pre-torque angle so as the bolt is tightened the bolt holes remain aligned, eliminating the risk of bent bolts. Pandrol tests have proved that bolts remain straight even at twice the recommended torque.

Engineering to self-align
The self-supporting profile of the clamp aids the installation process; the clamp self-aligns on to the fishplate due to the locking of the two clamp profiles under the rail. This makes it far easier for one person to install the clamps reducing the installation time to less than 2 minutes per clamp.

Compatible with many different rail profiles
The Pandrol Rail Clamp has been designed to accommodate most rail profiles to allow product reuse in most environments.

Reduced friction through wider contact points
To reduce the friction between the clamp and the rail foot the contact points are moved further apart. This increases the proportion of bolt load resolved in Clamp Force. Spreading the contact points also reduces the force on the rail and the stress within the rail foot.
**ADVANTAGES**

- Potential for higher line speeds and lower time-delay penalties.
- Proven reduced rail joint creep and improved vertical joint deflection.
- Potential for higher allowable line speeds when a longer fish plate is used resulting in reduced rail movement and reduced risk of joint separation.
- Clamp geometry enables a greater proportion of the bolt load to be applied to the fish plates.
- Reduced vertical rail movement and reduced rail joint creep due to higher clamp load.
- Reduction to the installation time due to self-supporting design.
- Hardlock anti-loosening nut system available

**COMPONENTS**

1. Pressure point
2. Foot
3. Shoulder
4. Toe
5. Washer
6. Nut
7. Bolt

**COMPARISON WITH TRADITIONAL CLAMPS**

Traditional Rail Clamp

Pandrol Rail Clamp

Narrow Support Points:
Higher Friction and Higher Rail Stress

Wider Support Points:
Lower Friction and Lower Rail Stress

Bolt Axis Misaligned

Bolt Axis Straight