



PRE-ASSEMBLY OF TRACK PANELS

Additional step to reduce traffic interruption.

Description

When track possession or the construction time of projects is short, there is a need for speeding up the construction process. Pre-assembled rail sections, so called track panels, can be a solution. These pre-assembled rail sections are manufactured by experts under controlled conditions. These rail sections are delivered in track with a JIT delivery service.

In addition, it contributes to an organized work site and safe installation, because materials are not lying on and around the track.

Benefit to the customer

- » Less costs of malfunctions
- » Low price due to optimized manufacturing methods
- » Fixed coordinates make installation easy
- » Shorter possession time and less personnel needed
- » Guaranteed high quality
- » Quality check before installation



SERVICE DESCRIPTION

Weather is a major influence of railway safety. For instance, a rail in direct sunshine can be as much as 20°C hotter than air temperature. Because rails are made of steel, they expand as they get hotter. By such temperature variations in long sections of unbroken rail, an expansion joint (an intentional gap in track) allows the track to expand. They are placed between very long sections of continuous welded rail (CWR), or at the transition between CWR and a joined track, and commonly in the vicinity of bridges and viaducts where the infrastructure and track may expand at different rates.

In the expansion joint, the two tongues are of identical design and supported by special baseplates, with clamps to hold the tongues in position whilst allowing longitudinal movement. This calls for meticulous precision which can be guaranteed by pre-assembled panels. These are technically optimized by specialists and assembled under controlled conditions. As a result, all essential materials are always available during installation.

To expedite the installation, all sleepers are produced with coordinates for the dowels. Therefore drilling is no longer required to mount sections on the sleepers.

Pre-assembled derailment systems prevent trains and/or wagons from colliding with tunnels, bridges or other railway constructions.

A specifically engineered steel construction attached to the sleepers will guide the train away from situations of possible derailment.

Similar to the expansion joints, these types of track panels are also technically optimized by specialists and assembled under controlled conditions.

Urban transport networks are often built by using pre-assembled (grooved) rail sections. This allows for better installation and integration into the superstructure such as roads within the city. A typical method is by using spacers, so-called traverse bars (see picture), in track panels with a maximum length of 18 meters. A complete track can be installed at the construction site, including sections of pre-curved rails, as a modular puzzle. The assembly of these track panels calls for meticulous precision and specialist engineering to enable smooth installation.

General, pre-assembled track panels are built to customer specifications in a variety of lengths and gauges. All sections are assembled on sleepers, or on specific light rail section systems. In short, track panels save installation time and labour costs. They can be made to order or warehoused for on time delivery to any destination.