

### **GUIDE RAIL**

### The optimal wheel guidance in the crossing area

#### Description

Since trams have to be guided separately in the area of turnout crossings, in order to bypass the interrupted running edge in the crossing, different types of guide rails are used in our turnouts depending on the application.

With all our guide rail designs, we place great importance on safety, availability, durability and a material-appropriate maintainability.



- » Suitable solutions for all rail profiles and maintenance philosophies
- » Ensure the highest level of functional reliability and maintainability
- » Use of highly wear-resistant materials in wear areas
- » Adjustment without affecting the top layer (adjustable guide rail)



#### System features

- » The right guide rail for all rail types
- » Straight and curved design
- » Special designs possible
- » Guide rail types
- » Construction rails (profile H = 180mm) 73C1 and 105C1 with integrated groove (flat and deep groove)
- » Standard rails with welded-in guide rail 400HB (deep groove)
- » Highly wear-resistant guide rail made of 400HB steel
- » Adjustable guide rail for improved maintenance

### 400HB GUIDE RAIL

#### Description

We use block rails made from highly wear resistant 400HB steels for this type of guide rail. These can be designed for each rail type as a flat or deep groove guide rail. By using the special materials, they receive a durable and maintenance-friendly product.



- » Suitable for all rail profiles
- » Using the highly wear-resistant 400HB steel
- » Same profile construction site impact to the subsequent rail profile
- » Maintenance in the track a given due to welding



# GUIDE RAIL WITH WELDED-IN 400HB STRIP

#### Description

In order to take advantage of the qualitative advantages of rolled rails in guide rails (deep groove), we have developed a guide rail that provides increased wear resistance in the guiding area of the wheel at the leading edge without losing the rolled surface of the driving head.

The constraint of the rolled rail in the area of the guide rail function is separated out and replaced with a highly serviceable, highly wear-resistant 400HB special material. This method can be applied to all available rail qualities of R200, R220, R260, 290GHT-CL, R290GHT and R340GHT and allows us to map the turnout in a consistent material quality.



- » Suitable for all rail profiles and rail qualities
- » Continuous quality strategy for rails can be implemented by the turnout
- » Using the highly wear-resistant 400HB steel in the guide area of the guide head
- » High quality of the running surface due to the use of a rolled rail profile
- » Maintenance of the leading edge in the track by welding



# ADJUSTABLE GUIDE RAIL

#### Description

Track systems and turnouts (systems) made of grooved rails are characterized by the fact that they are usually not in the separate railway body, but rather are in the road area in the covered state, usually being driven on by individual traffic. In conventional covered design of grooved rail turnouts flush with the street, the individual components cannot be reached from the outside. To avoid premature replacement of individual components, only build-up welding can be used as repair technology. However, the welding technology requires a sufficient weldability of rail materials. However, this is not the case when using highly wear-resistant materials. That is why voestalpine BWG developed several designs in recent years that allow for the replacement of individual components in the covered state. In addition to the switch adapter for switch assemblies ZAD 30/45/S and the interchangeable crossing WHZ-T, the adjustable guide rail also follows this development. The requirements identified at the start were consistently implemented with respect to maintenance that is as maintenance and repair-friendly as possible. voestalpine BWG has developed a design that for the first time makes it possible to achieve the adjustment in the horizontal direction by a mutual displacement of two slanted planes in a vertical direction.



Einsatz des RLv







- » Suitable for all rail profiles
- » Use highly wear-resistant steel for the adjustable guide rail strip (e.g. HARDOX 400 or 500)
- » Good, easy accessibility of the adjustment mechanism
- » Precise adjustment in tenths of a millimetre

- » Reduction of maintenance costs
- » Optimum track guiding throughout the service life
- » Fast amortisation
- » Adjustment without impairing the top layer and opening the cover or closure panels

