



# V-Tram

A full range of turnouts for modern tramways

Grooved rail: embedded track

Vignole rail: segregated track



**vossloh**  
enabling green mobility

# The turnout specialist for all your tramway projects

Vossloh is a world-leading specialist in the design and manufacture of switches for all urban and interurban guided transport systems. Our teams design and build global solutions for trams, whatever the technique or rail profile. For maximum comfort, safety, and reliability, we have developed monobloc switches that are machined in the mass, thereby optimizing the total cost of ownership of switches (LCC: Life Cycle Cost).

Thanks to multiple areas of competence and experience, Vossloh actively contributes to development of modern tram systems, which combine in particular:



- Adaptation to the rolling stock
- Line geometry
- Rail profile type
- Various types of laying: concrete sleepers, slab track, etc.
- Reduction of maintenance
- Harmonious integration into city centres
- Compliance with environmental constraints, as well as reducing the carbon footprint

We produce all types of turnouts using Vignole rails or grooved rails: single turnouts, diamond crossings, single or scissors crossovers, double junctions, harp turnouts, rail expansion joint, temporary turnouts and others, in accordance with the various tangents and usual radii.

## Vossloh supports all stakeholders in the tramway industry

Our track equipment is perfectly adapted to specific geometric constraints, enabling tramways to operate in the safest and most comfortable conditions possible. It also meets environmental requirements, minimising noise levels for the well-being of local residents and reducing the carbon footprint during the manufacture, use and maintenance of the products.

## A network of experts offering you a wide range of services

- **Project**  
Installation studies, alignment recommendations, choice of turnouts
- **Production**  
Pre-assembly, installation assistance, on-site commissioning and track acceptance, actuation device and control system for turnouts
- **Maintenance and after-sales service**  
Inspection, diagnostics, maintenance, renovation, technical assessments
- **Training**  
Installation or maintenance of turnouts or actuation device and control system
- **Network management**  
Predictive maintenance support tools, real-time diagnostics

Proven experience on European tram networks, competence that is recognised throughout the world

# A full range of turnouts to meet all your needs

We recommend to our customers the switch type that is the most suitable for their needs according to use, location on the network and the criteria adopted for maintenance.

### Embedded track turnouts in grooved rail

#### ➤ Mixed traffic

Urban route shared between the tram and road vehicles or pedestrian zone.

Devices designed for a platform with surfacing (asphalt, concrete, grass, etc.)

The grooved rails turnouts are produced in monobloc technology developed by Vossloh.

### Premium MB-400B



The best technical choice for a high-end product

Depending on the degree of stress undergone by the turnouts, Monobloc version technology is necessary.

### Basic MB-400B



The entry-level solution in welded components

To meet all international market specifications, a mechanically welded version of the switch is always available.

### The monobloc switch with interchangeable parts



### A range of action devices suitable for the coated platform

MCEH61/MTEH61  
Electrohydraulic switch mechanisms

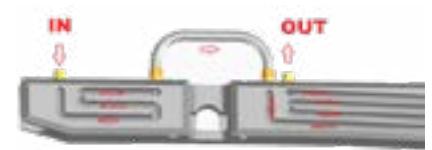


#### ➤ Reduces maintenance time

#### ➤ Easy to install and maintain

## EVEN GREENER SOLUTIONS

### Eco-intelligent switch heating



Adaptable to all renewable energy sources (district heating, geothermal energy, etc.)

➤ Reduced energy costs, economic and environmental benefits

### Premium TR-260A



Equipment designed for a platform without coverings, generally on ballasted track.

- Tram Train
- Tunnels
- Depots

The best technical choice for a high-end product

Asymmetrical switch rail with forged heel (low / shallow switch rail) elastic laying with IBAV system.

### Eco TR-260S



The economical solution for a quality product

Symmetrical switch sail with machined heel (high switch rail) rigid laying.

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