



**V-Net**

A full range of turnouts for conventional railways

**vossloh**  
enabling green mobility

# The turnout specialist for all conventional railway projects

Vossloh is a world leader in turnout design. Our teams offer global solutions for turnouts with equipment and safety products for drive, locking, control and monitoring systems. We offer the most innovative solutions, using our international experience, while guaranteeing a high level of reliability and optimised life cycle costs.

## High-performance, exclusive state-of-the-art technology

**Monobloc manganese obtuse crossing with welded leg ends to link rails to the crossing.** The welding of rails into the crossing in the workshop, using a special welding procedure called tri-metallic welding, offers perfect continuity of rails, in alignment and in curves, and the possibility of incorporating turnouts into Continuous Welded Rail type tracks.



**Forging for switch rails, produced using a high performance industrial tool.** To achieve the best life cycle performance Vossloh recommend the use of shallow depth (asymmetric) switch rails which are different to the connecting rail. Forging is done at the heel of the switch rail to allow welding to this adjacent rail.

Vossloh is the ideal partner for supplying safe, reliable, proven and more economical solutions for an ecological sustainable development approach that enables green mobility and reduces maintenance cost.

### Inclined turnout to ensure running continuity

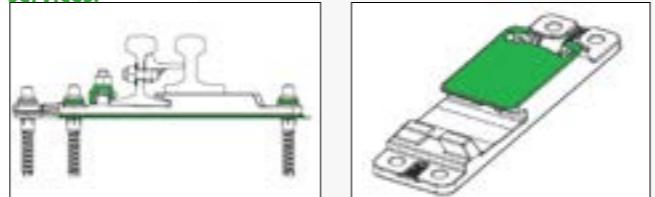
As a pioneer in this field, Vossloh has for several years, been developing the 1/20 and 1/40 inclined running table in perfect plain track continuity, by creating an innovative, patented switch rail profile, design monobloc manganese cast crossings, and inclined wedge pads for W21 fastening system.

Perfect running continuity on the turnout is guaranteed reducing maintenance and dynamic interference to rolling stock, while improving passenger comfort. Vossloh supply also turnouts which are vertical laid to suit the specific requirements of the customer. Slide chair with rollers, springs, special coatings such as Cogislide and Molybdenum make it unnecessary to lubricate:

- › Reduce maintenance costs
- › Decrease pollution
- › Optimize the availability of the tracks

Turnouts are manufactured and assembled at the workshop. They can be shipped as pre-assembled modular units on special wagons: a solution that limits tracking mobilisation time while giving better value for money.

**From the design of turnouts to their delivery and associated services, Vossloh provides a full range of turnkey services.**



Slide chair with resilient fastening and sliding table without lubrication

# Turnouts customised for your network with safe and fully secured equipment

High-performance drive systems for improved track reliability, availability, maintainability and safety

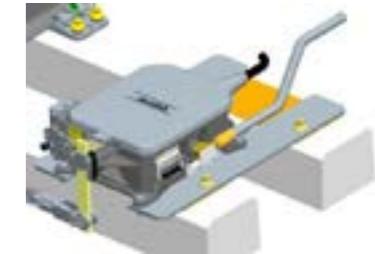
To meet the various needs of railway infrastructures, Vossloh has developed a range of drives that are adapted to different network types. To permit optimum train movements, turnouts must be driven reliably and safely to ensure safety on the network.

### V-Net

- › Integrated hydraulic drive
- › Integrated mechanical drive
- › Multiple drive
- › Single drive

### MCEM91 drive mechanism

The drive in its simplest and most robust form, proven worldwide.



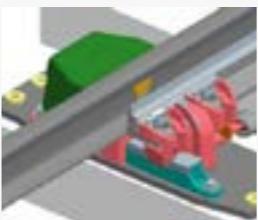
**All types of laying situations:** concrete bearers, timber, metal sleepers, EPS (Polymer) or on slab track. All the components of turnouts are designed and produced such that their complete interchangeability is guaranteed.

### Ready for Digital Monitoring

In order to assist customers asset management regime Vossloh preinstall digital remote condition monitoring systems to new and existing point machines and accelerometers that will enable the prediction of track degradation.



### Proven signalling systems for controlled locking for greater safety



#### Clamp Lock (VCC)

It is an individual locking and switch rail control device. Both switch rails are locked and individually controlled in their final positions.



#### Paulvé detector

It controls the application and opening of switch rails.



#### Swing nose clamp lock (VPM)

It locks the swing nose. It is fixed to the cradle and works on the same principle as the VCC.

### References

Algeria, Australia, Austria, Belgium, Canada, Cameroon, China, Croatia, Czech Republic, Denmark, Egypt, Ethiopia, Eurotunnel, Finland, France, Gabon, Germany, Greece, India, Indonesia, Israel, Italy, Ireland, Ivory Coast, Luxembourg, Libya, Malaysia, Morocco, Mauritania, Norway, Poland, Portugal, Romania, Saudi Arabia, Senegal, Serbia, Slovenia, Spain, Sweden, Taiwan, Thailand, Tunisia, UK, USA, Venezuela, etc.



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