



 **V-Net**

A full range of turnouts for conventional railways

# The turnout specialist for all your conventional railway projects

Vossloh Cogifer is a world leader in turnout design. The company offers global solutions that include turnouts with all their equipment and safety products for drive, locking, control and signalling systems.

We offer the best, most innovative solutions, using our international experience, while guaranteeing a high level of reliability and optimised service life costs.

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

### Monobloc manganese common 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 CWR (Continuous Welded Rail) type tracks. More than 6,000 monobloc crossings and cradles with welded leg ends are manufactured in our workshops every year.

### Inclined turnout to ensure running continuity

As a pioneer in this field, Vossloh Cogifer 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, and relying on the facility of design and realization of monobloc manganese casted. It guarantees perfect running continuity on the turnout. This reduces maintenance as well as dynamic interference to rolling stock, while improving passenger comfort.



### Forging for switch rails, produced using a high-performance industrial tool

For high speed switches, the switch rail is different to that of the connecting rail, which has a common profile. Forging is done at the heel of the switch rail to allow welding to the adjacent rail of the intermediate track.

Vossloh Cogifer manufactures more than 20,000 forgings every year for special switch rails using an ultra-high-performance computerised industrial tool that is unique in the world. Forging of up to 600 mm is performed in 55 seconds in a single heating cycle, thus preventing any damage to the metallurgical properties of the steel.

*Reliable, safe switches with low maintenance costs.*

Our turnouts are manufactured, workshop assembled and shipped preassembled 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 Cogifer provides a full range of services for turnkey turnouts.



## **V-Net**, turnouts that are adapted to your network

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

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



- ▶ Integrated hydraulic drive
- ▶ Integrated mechanical drive
- ▶ Multiple drive
- ▶ Single drive

#### Example of MCEM91 drive mechanism

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

Our turnouts can be installed in different types of laying situations: on concrete bearers, timber or metal sleepers or on slab track.

All the components of our turnouts are designed and produced such that their complete interchangeability is guaranteed.

### ▶ **Safe, fully secured equipment**

#### 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.



#### 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.



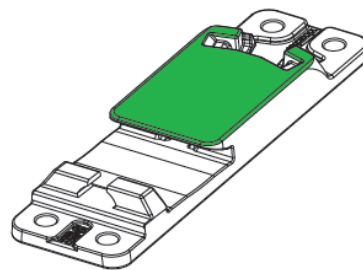
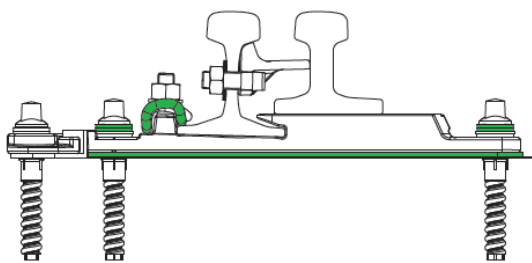
#### Paulvé detector,

It controls the application and opening of switch rails.



**Proven signalling systems for controlled locking for greater safety!**

Vossloh Cogifer, thanks to its experience, is able to develop new solutions through technical innovations, permanently providing optimum safety while significantly increasing the service life of equipment.



Slide chair with rollers, springs, or chrome-enriched nickel treated ones make it unnecessary to lubricate switch rails or crossing swing noses, thereby reducing maintenance costs, thus causing a decrease in pollution and optimizes the availability of the tracks.

► Slide chair with resilient fastening and sliding table without lubrication

Vossloh Cogifer is the ideal partner for supplying safe, proven and more economical solutions for an ecological sustainable development approach.

### References

Algeria, Australia, Austria, Belgium, Canada, Cameroon, China, Croatia, Czech, 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, USA, Venezuela, etc.

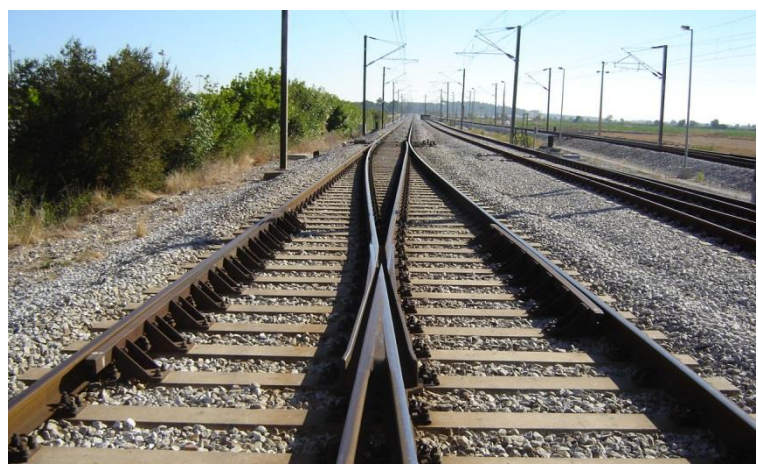


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