

Weckenmann Anlagentechnik GmbH+Co.KG, 72358 Dormettingen, Germany

Rail.One increases its concrete sleeper production capacity

Since its introduction in 1970, the B70 concrete sleeper has been the most widely used prestressed concrete sleeper in the Deutsche Bahn rail network. It is flexible in use, can bear a load of 25 tonnes and allows speeds of up to 250 km/h. Despite that it weighs just 280 kilograms. The B70 is also produced by Rail.One on a large circulation plant in the Coswig plant near Dresden.

B70 - a mainstay

The B70 was developed by the Central Office of the Federal Railways and is subject to continuous improvement by Rail.One. The company belongs to the Indian PCM Group of Industries. The PCM Rail.One Group has been producing concrete sleepers and permanent way systems for over 60 years and has eleven production sites across the globe.

The B70 concrete sleepers have been produced since 1992 in Germany, including at Rail.One GmbH's site in Coswig near Dresden. On account of sharply increasing demand, Rail.One took the decision to effect a large increase in the production capacity for the B70 in the Coswig plant.

The machine and plant manufacturer Weckenmann GmbH & Co.KG was commissioned as general contractor to expand the capacity of the plant. In the process, the steel quadruple moulds were to be transported from the existing circulation via a heavy-duty roller conveyor into the extended curing chamber, this with the shortest possible cycle time.

In the new plant the quadruple moulds are taken up by a fast automatic crane (payload 8 t) and stored above one another in five individual shafts in the large curing chamber. Once a shaft is full, it is automatically sealed by the stacking crane. The minimum curing time is controlled precisely by the system. Once the time has expired, the crane removes the moulds again and puts them back into the circulation via a heavy-duty roller conveyor.

The travel drives and the quadruple rope winch require a highly dynamic and precisely running drive technology. The Weckenmann plant controller with integrated visualisation controls all processes in the plant reliably and is connected to the existing circulation plant controller.



A look inside the new curing chamber at Rail.One in Coswig.



Quadruple mould for the B70 sleeper.



Fully automatic stacking crane

As general contractor, Weckenmann also built the 54 metre-long hall - a steel structure with insulated panels for the roof and walls.

The expansion of the capacities in Coswig proceeded without the running production having to be interrupted. That wouldn't have been possible without solid project planning and the close co-operation between the project teams at Rail.One in Coswig and at Weckenmann. ■

FURTHER INFORMATION



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