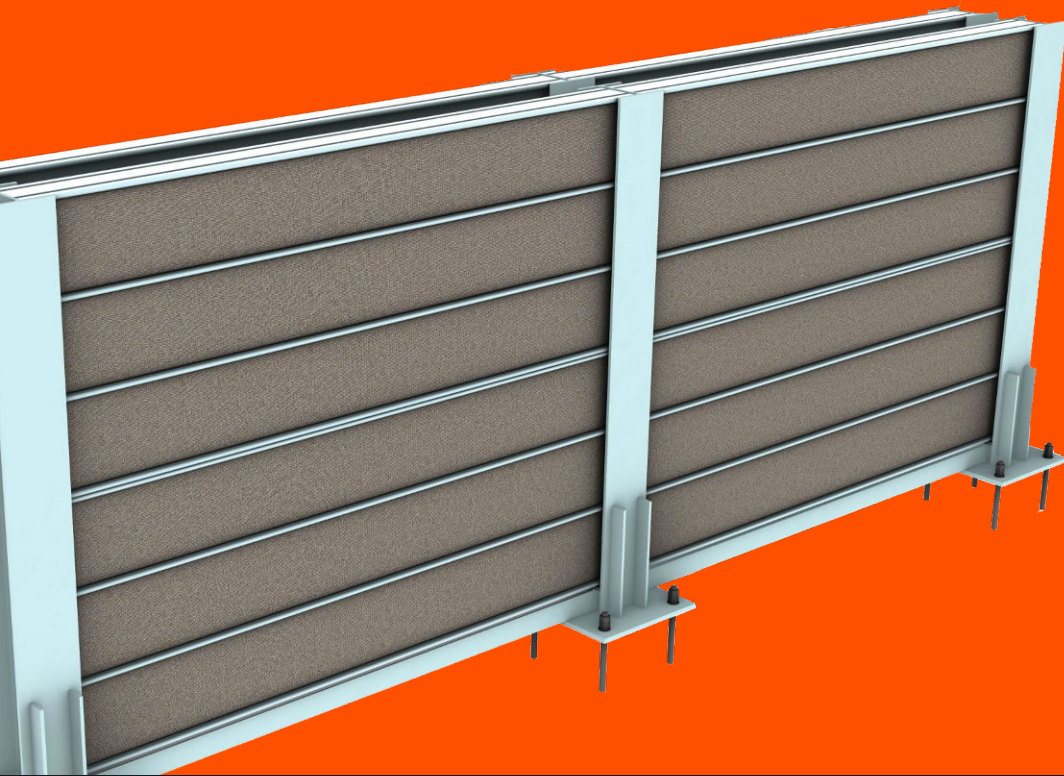


# Noise Barriers

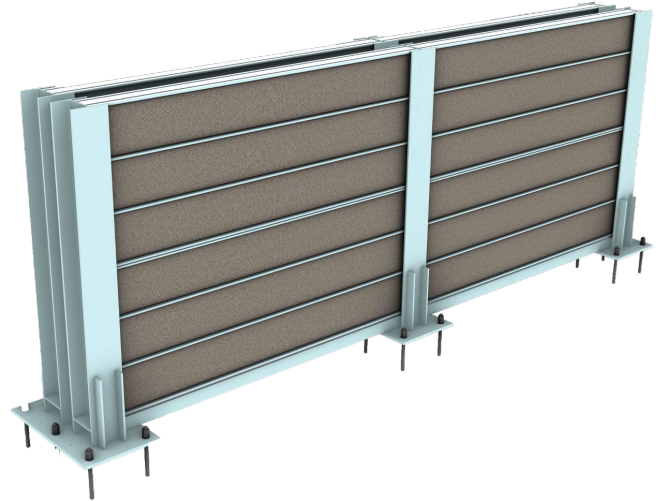


Commuter  
Main Lines  
High-Speed Lines

# Applications

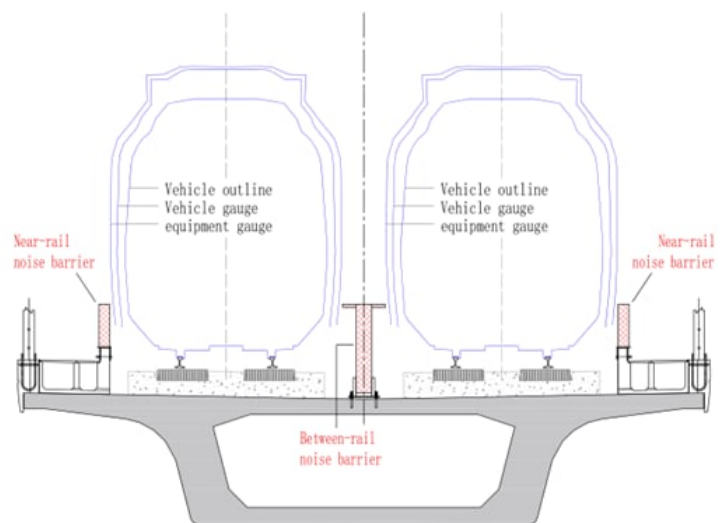
## Noise Barriers

For the new construction, reconstruction and expansion of railway and urban rail transit lines passing through the areas where noise sensitive buildings are concentrated, noise barriers need to be set to control and reduce the noise pollution of rail transit. Setting up noise barrier has become an important legal measure.



The near rail noise barrier products of Tiantie adopt the acoustic materials and structures of "focusing on absorption, supplemented by separation", forming a U-shaped semi enclosed space around the track structure and the lower periphery of the vehicle, realizing the effective absorption of the noise of the wheel rail and the lower part of the vehicle in the near-field limited area of the sound source, and reducing the noise reflection and overflow.

The near rail noise barrier adopts the plug-in plate structure, with the H-shaped steel column as the supporting component of the noise barrier. The installation position is close to the rail, the overall height is the same as the train wheel, and meets the gauge safety requirements.



## Features and Benefits

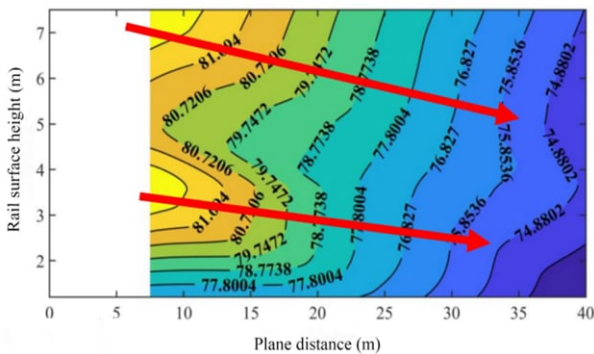
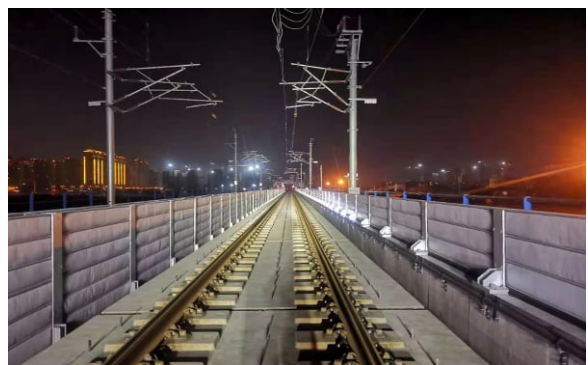
The near rail noise barrier products of Tiantie have the characteristics of good sound absorption effect, beautiful and portable, low natural frequency and long service life, and both sound absorption and

sound insulation performance are very outstanding, with sound reduction index  $\geq 42\text{dB}$  and noise reduction coefficient  $\geq 0.95$ .

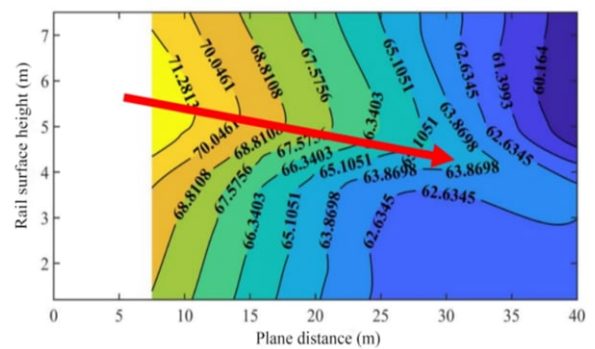
## References

The near rail noise barrier products of Tiantie are especially suitable for near rail installation in rail transit, working conditions with high driving speed, or typhoon conditions, as well as parts with great noise impact from racing yards or equipment. At present, they have been successfully applied in Wenzhou City railway line S1 and other projects.

On the S1 line of Wenzhou City railway, the installation length of near rail noise barrier is 200m, the designed maximum running speed of the train is 120km/h, the bridge at the installation position is a concrete simply supported box girder, and rubber vibration isolation mats are paved under the track bed.



Without Near-rail noise barrier



With Near-rail noise barrier

Cloud chart of noise distribution before and after application of near rail noise barrier on Wenzhou City railway line S1.

After the application of near rail noise barrier, the noise sound pressure level at 3.5m above the top of rail and 7.5m from the track centerline is reduced by

about 13dB, and the near rail noise barrier has a good barrier and absorption effect on the wheel rail noise and the noise under the vehicle body.

## Company

Zhejiang Tiantie Science & Technology Co., Ltd.

## Founded

Founded 2003

## Revenue

\$ 267 Mio. USD (Group) 2021

## Employees

940 (Group)

## Competences

Noise and Vibration Control, Rubber Technology

## Industries

Railway, Buildings, Industry

## Headquarters

Tiantai, China

## Affiliates

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