

Influence of Train Nose Shape on Pressure Variation in Tunnel

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Pressure variations are generated during a train passage in a tunnel. Model experiments are effective in investigating the pressure variations. In the model experiments, axisymmetric train models are frequently used, because the train model is launched by friction drive consisting of vertically aligned wheels. However, train models similar to actual shape need to be used for estimating more accurately the pressure variations during a train passage. For this purpose, the launcher, which can shoot an actual shape train model by rotating wheels, has been developed. The pressure variations measured using the actual shape train and tunnel models agree well with the results of field measurements.