

## **Effective Specifications for Cross-Sectional Area of Tunnel Hoods for Reducing Micro-pressure Waves**

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Tunnel hood is one of countermeasures adopted for reducing micro-pressure waves emitted from high-speed railway tunnels. Experimental tests were conducted using axisymmetric models to investigate the effect of the cross-sectional area of the hood. The results show that the effective cross-sectional area of the hood with a uniform cross-section is larger than that of existing hoods installed in Shinkansen tunnels in the high-speed range with faster speed than 260 km/h. Furthermore, tunnel hoods with multistep cross-sections are more effective than those with a uniform cross-section. Adoption of the proposed hood specifications based on these findings enables the required hood length to be shorter than existing hoods.