Abstract

The radiated noise from the intake and exhaust orifice is a major contributor to the vehicle interior noise as well as for the exterior noise. Therefore the acoustic prediction of internal combustion engine exhaust systems is an important aspect to meet customer expectations and legislation targets. One dimensional gas dynamic simulation tools are used for the prediction of the exhaust and intake orifice noise in the early stages of the engine development process. This includes the prediction of the acoustic performance of individual components in the intake and exhaust line.