

## **5. Examination of Noise Control Method in Supply or Exhaust Opening of a Factory - Design of Silencer -**

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Measures are required in the supply or exhaust opening of a factory to reduce the noise that propagates out of the factory. As means of controlling the noise while ensuring ventilation, silencers such as louvers or chambers are generally adopted in numerous cases. For these silencers, specialized makers frequently ensure the performance requirements by combining existing products. Design may sometimes be difficult if a certain level of noise reduction is required. Space may be insufficient for installing the silencer to achieve the required level of noise reduction. And full considerations should therefore be given not only to the noise reduction level but also to pressure loss.

A method was developed in this study to design a silencer that satisfy the limit of pressure loss and noise reduction amount to the target.

**Keywords:** industrial noise, silencers, sound absorbing chambers, pressure loss