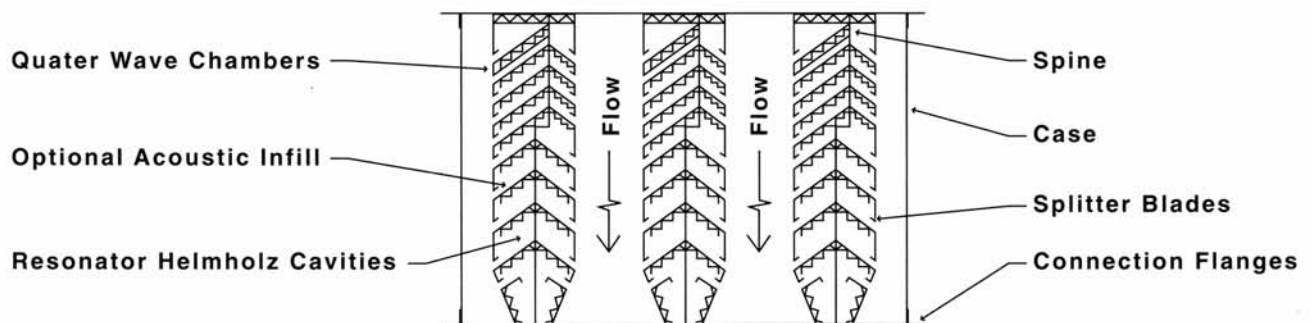


NAP Resonator Silencers

NAP Resonator Silencers are ideal for control of noise produced by large industrial process plants, manufacturing and mining installations, food processing and electrical power generation plants, where control of broadband fan noise with tonal components is critical.

Resonator Silencers, sometimes called Tuned-Dissipative Silencers or Christmas Tree Silencers, are suitable for fan silencing when such equipment becomes a source of community noise problems for residents living adjacent to industrial plants.



Construction

Resonator Silencer construction consists of Quarter Wave and Helmholtz chambers which generally contain a number of cavities tuned to the fundamental frequency and its first harmonic. Other chambers provide attenuation across the full frequency band.

For further details on technical performance, details of construction and aerodynamic performance, please refer to our more comprehensive technical literature.

Applications

In commercial applications such as kitchen exhausts, clean air rooms, electronic component manufacture, laboratories and medical facilities where extremely high air quality or low particulate contamination is required, the silencers can be supplied without fibrous infill and with special non-contaminating absorptive, or flow resistive, linings. Thus, depending on the technical and environmental requirements, these silencers can be supplied with optional linings as follows:

- Mineral wool or glass fibre
- Acoustic foams
- Flow resistive facings (no infill at all)

NAP Resonator Silencers

General Comments

Resonator Silencers are used in dirty airflow paths, where conventional absorptive type silencers clog up and become ineffective.

They are particularly useful in dusty environments where sustained performance over long periods of time is required.

The graphs below demonstrate the rapid deterioration in performance, which can occur with conventional silencers in dirty airstreams.

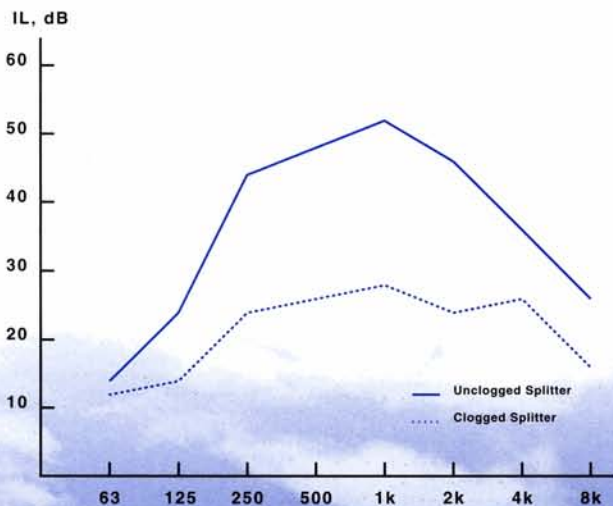
If maintenance is required, the Resonator Silencer can readily be cleaned in situ, or the splitter elements can be removed.

Another feature of Resonator Silencers is that they will continue to perform in aggressive environments where traditional fibrous infills cannot be used for periods of several years or more, depending on conditions in the duct.

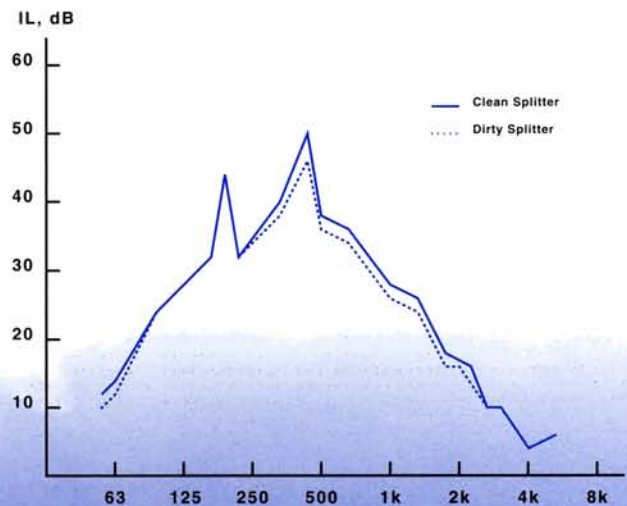
NAP Silentflo is the leading designer and manufacturer of noise control equipment in the Southern Hemisphere. Whatever the noise problem experienced in architectural, commercial or industrial situations, NAP Silentflo has a proven engineered product to solve it.

For further details including the range of materials, technical details and specific applications, please contact NAP Silentflo.

Performance of clogged and unclogged silencer - Absorption Splitter Type



Performance of clean and dirty silencer - Resonator Type



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