



## ACOUSTIC SILENCERS

VG Engineering acoustic silencers are custom engineered to specific customer requirements for a wide range of industrial applications.

VG Engineering offers Absorptive, Reactive or Tuned Dissipative silencers dependent on the application requirements. Absorptive silencers are used to treat most applications where noise is generated over a range of frequencies (broad band noise), tuned dissipative and reactive silencers used for tonal or narrow band noise and are normally preferred

where dust, powder or fly ash is present. Cleanable silencers are available where required to maintain silencer performance where the flow medium contains high particulate levels.

### Silencer dynamic insertion losses

VG Engineering silencers meet or exceed any specified silencer insertion losses in all octave bands for the near field and far field noise criteria. Silencer designs consider the noise criteria of the system environment including meteorological effects, to optimize the required noise reduction. As part of the system analysis potential noise breakout from system ducts or effects of flow control devices are also considered.

### Silencer pressure drop

Silencers are an important flow component when included in the system, as the effect of the silencer on the system is not only limited to the silencer pressure drop itself. The system flow velocity and uniformity upstream and down stream of the silencer together with local changes in duct cross section and flow direction effect the actual installed silencer pressure drop. By analyzing the whole system to meet the system flow requirements VG Engineering is able to minimize the resultant system pressure drop and maximize the flow quality.

VG Engineering Silencers are constructed to suit customer service conditions in square, rectangular and round cross sections. Large silencers can be constructed as modular units for ease of transportation and installation.



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Acoustic absorption material options include glass fiber, mineral wool, ceramics and basalt encapsulated as required in a range of materials including Mylar, Tedlar® and glass fiber cloth as suited to the operating conditions.

Silencer frame and shell construction materials include galvanized steel, carbon steel, stainless steel, aluminum, nickel alloy, or FRP with finishes as required. Internal supports and frame design insure that structural integrity and acoustical performance are maintained throughout the service life

### Features include:

- All welded construction.
- Drilled flange connections (to suit requirement)
- Lifting lugs and mounting points (as required)
- Superior flow and acoustical design maintains life-time performance
- Easy installation

### Options:

- Weather resistant and high temperature protective coatings
- High temperature and high velocity acoustic materials
- Weather hoods / Outlet Nozzles
- Support Structures, platforms, access ladders
- Drain points
- Expansion joints



**APPLICATIONS INCLUDE:** POWER GENERATION GAS TURBINE INLET AND EXHAUST SYSTEMS | COMPRESSORS | BLOWERS | INDUSTRIAL FANS | HVAC SYSTEMS | FOOD PROCESS FACILITIES | TUNNEL VENTILATION SYSTEMS | COAL FIRED POWER PLANTS CEMENT PLANTS | JET ENGINE TEST CELLS INTAKE AND EXHAUST SYSTEMS