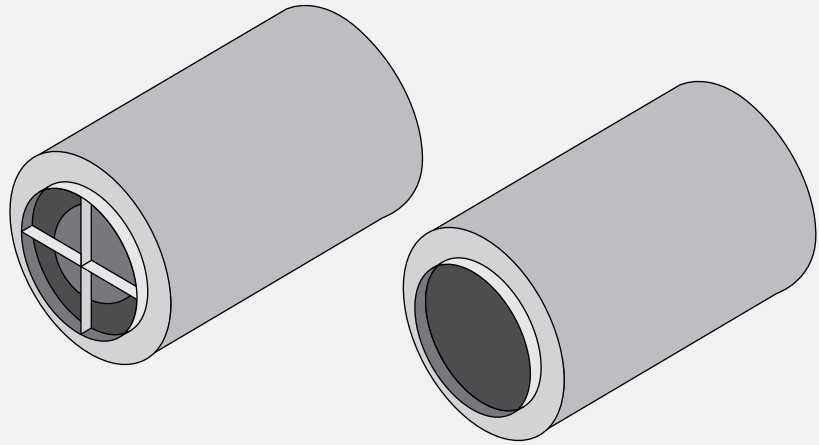


CD

Circular Dissipative
Straight Silencers



Description

VIBRO-ACOUSTICS' CD SILENCERS use acoustic grade glass fiber as the principal sound-absorbing mechanism. They incorporate glass fiber external to the duct connection size.

Some models incorporate a bullet shaped center body held in place and centered by trusses. Duct outer diameter and gap factor also vary depending on the pressure drop and attenuation requirements

Model Names

Vibro-Acoustics' silencer model names are coded to help identify their recommended application range.

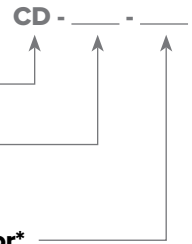
*The lower the Frequency Indicator, the better the silencer's insertion loss in the low frequency range.

Circular

Silencer Type

Velocity Range
LV, MV, HV, UHV

Frequency Indicator*
F1, F2



Applications

- > In supply, return and exhaust ductwork
- > In fan plenums and air handling units (both supply and return)
- > On cooling towers, air-cooled chillers, etc.
- > On the receiver side of valves, dampers, terminal boxes, etc.
- > Economical substitution for acoustically lined duct
- > Normal recommended duct velocity range

CD-LV	0-1500 fpm	CD-HV	3000-5000 fpm
CD-MV	1500-3000 fpm	CD-UHV	5000-7000 fpm

Features and Benefits

- > Available in any diameter to “fit-the-duct”
- > Can be selected to suit the acoustic, space, or energy-cost requirements
- > Construction quality and aerodynamic design optimized to give reliable performance, best acoustics, lowest pressure drop and lowest overall cost
- > Designs can be optimized to minimize extra pressure losses due to poor inlet or discharge flow conditions (e.g. near fans, elbows, etc.)
- > When break-out noise is of prime concern CD silencers may be appropriate selections. They may require mass/stiffness added to their outer casing. Refer to [Silencer Selection Instructions](#) for proper silencer location.

Cautions/When Not to Use CD Silencers

- > When 3-5 equivalent duct diameters of straight, unobstructed duct are not available on both the silencer’s inlet or discharge; consider using Elbow Silencers, Transitional Silencers or Fan Silencers.
- > When acoustical media in the airstream is of concern; see Film Lined Silencers and No-Media Silencers.

Performance Data/Testing

See [Performance Data](#) section.

Vibro-Acoustics’ 5th generation aero-acoustic laboratory was the first laboratory to be NVLAP accredited (Lab Code 100424-0) for the ASTM E-477 silencer test code. NVLAP is administered by the U.S. Dept. of Commerce.

Silencer Selection and Location

Vibro-Acoustics offers multiple selection methods, from our complete analysis service to Do-It-Yourself quick selections. Refer to [Silencer Selection Instructions](#) for details.

Standard Construction Features

- > Galvanized, lockformed casings for class I construction
- > Galvanized or prime painted mild steel, stitchwelded and sealed casings for class II construction
- > Prime painted, mild steel continuously welded casings for class III construction
- > 2” slip connection at each end
- > Centerbody “bullet” centered and supported in airstream by steel struts
- > Centerbodies have either spun aerodynamic noses or truncated nose cones
- > Centerbodies have perforated diffuser tail sections
- > Casing and centerbodies filled with acoustic grade glass fiber under minimum 15% compression

Special Construction Options

- > Heavier gauge casings and perforated metal
- > Continuously welded casings
- > Special materials (e.g. stainless steel, aluminum)
- > Flanges
- > Access doors
- > Media protection: glass fiber cloth, film liner
- > High transmission loss (HTL) casings to prevent break-out/break-in noise
- > Built in transitions
- > Removable splitters
- > Flow measuring stations
- > For details of above and more special options see [Special Construction Options](#).