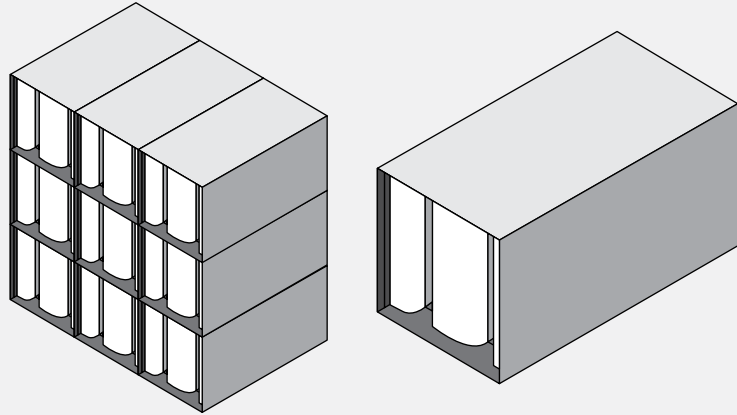


## RD

Rectangular  
Dissipative  
Straight Silencers



### Description

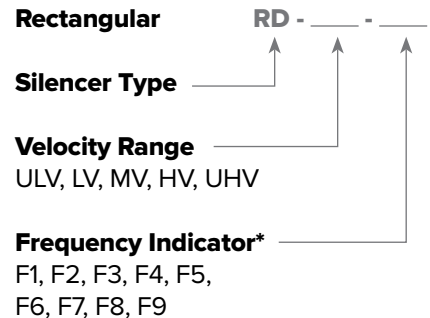
**VIBRO-ACOUSTICS' RD SILENCERS** use acoustic grade glass fiber as the principal sound-absorbing mechanism. Rectangular models utilize acoustical splitters, sometimes called baffles, for broad-band attenuation. Perforated metal protects the glass fiber from erosion by the airflow.

Splitters in rectangular models vary in quantity and thickness, and air passages also vary in size. The splitters are aerodynamically shaped to minimize pressure drop.

### 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. The higher the Frequency Indicator, the better the silencer's insertion loss in the mid to high frequency ranges.



### 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

RD-ULV	0-500 fpm	RD-HV	1250-2000 fpm
RD-LV	0-750 fpm	RD-UHV	2000-2500 fpm
RD-MV	750-1250 fpm		

For velocities in excess of the RD-HV range see the [EX Model](#) and [RLP Silencers](#).

## Features and Benefits

- > Available in any cross-sectional dimensions to “fit-the-duct”
- > Modular unit sizes to fit ducts and air handling units without using transitions or large blank-off sections
- > Standard rectangular silencer lengths available in 36, 60, 84 and 108”; custom lengths up to 144” at no cost premium
- > 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
- > Splitters can be aligned vertically or horizontally 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 RD 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 RD 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 velocities exceed 2000 fpm for RD silencers; consider RLP Silencers or EX Silencers
- > When acoustical media in the airstream is of concern; consider 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 casing constructed to SMACNA standards
- > 1” slip connection at each end
- > Aerodynamically shaped, galvanized nose at inlet
- > Galvanized gap plates between splitters to ensure close dimensional tolerances at air passages
- > Perforated galvanized splitters complete with perforated diffuser tail sections
- > Splitters 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](#).