

## SILENCER SHEETS

### DESCRIPTION

Vibro-Acoustics' HTL silencers incorporate mass and/or stiffness added to the silencer casing to reduce break-out or break-in noise. The materials are externally applied and completely sealed to the silencer casing in the factory. This ensures quality controlled transmission loss.

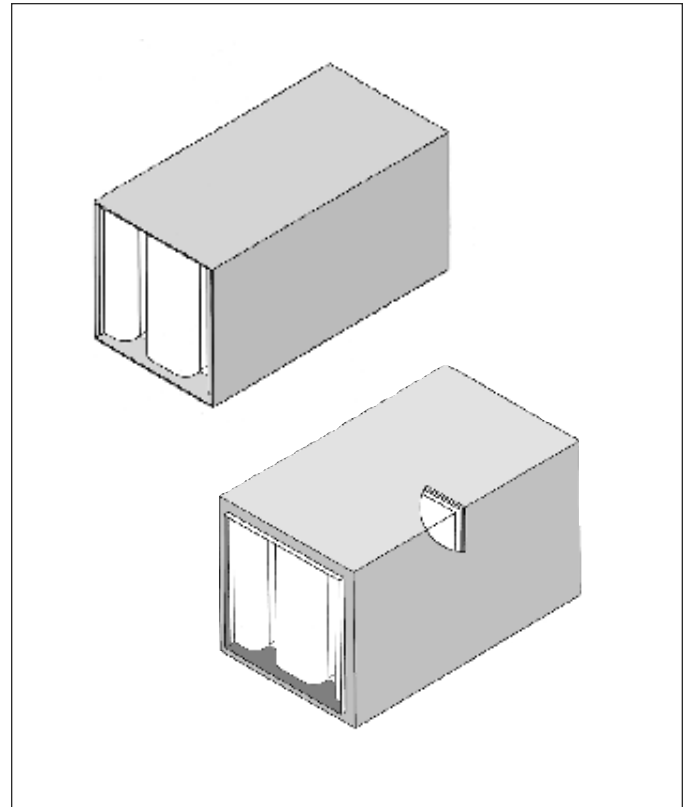
HTL construction can be applied to ANY Vibro-Acoustics silencer type including Dissipative, Film Lined, No-Media, Elbow and Transitional Silencers. HTL construction can also be applied to normal ductwork.

### APPLICATION

- ◆ wherever break-out or break-in noise is of concern (see SAS 4)
- ◆ when silencers are located in the occupied space
- ◆ when ductwork is located between a noise barrier (e.g. MER wall) and the silencer
- ◆ under Roof Top Units (both supply and return) (see SAS 6)
- ◆ for silencers and ductwork located in noisy equipment rooms to minimize break-in noise
- ◆ when silencers are directly connected to fans or air handling units
- ◆ in ductwork passing through sound barriers between noisy and quiet spaces

### FEATURES AND BENEFITS

- ◆ externally applied materials to ensure optimal seal and quality controlled transmission loss
- ◆ duct wall construction consists of media, air space, mass and outer protective metal skin, as required, to obtain the specified noise criteria
- ◆ available in any cross-sectional dimensions to "fit-the-duct"
- ◆ one-piece or sectional supply for ease of installation
- ◆ can be selected to suit the acoustic or space requirements
- ◆ can be applied to ANY Vibro-Acoustics' silencer model
- ◆ HTL applied in factory vs. application in field ensures the following benefits
  - ◆ better seal to silencer or ductwork
  - ◆ eliminates the need for multiple installation trades for field application
  - ◆ lower overall cost
  - ◆ single source responsibility for noise control product



### CAUTIONS / WHEN NOT TO USE HTL SILENCERS

- ◆ when break-out or break-in noise is not of concern (fan/duct system analysis required - see Selection/ Specification Section for details)

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### TESTING

Vibro-Acoustics' 4th generation aero-acoustic laboratory has the capability of testing multiple HTL silencer/ductwork configurations. The 20,000 cu.ft. reverberation room ensures reliable low frequency measurements. The Vibro-Acoustics laboratory was the first to be NVLAP accredited for the ASTM E-477 silencer test code. NVLAP is administered by the U.S. Dept. of Commerce. See the Corporate/Laboratory Section.

### SILENCER SELECTION AND LOCATION

Vibro-Acoustics' HTL Silencers and Ductwork need to be carefully selected to optimize performance. Call 1-800-565-8401 for custom selections by our application engineers.

### STANDARD CONSTRUCTION FEATURES

HTL walls are custom designed to meet the system noise criteria requirements. Consult the Standard Construction Features of the Silencer Type to which the HTL walls are to be applied.

### SPECIAL CONSTRUCTION OPTIONS

- ◆ continuously welded casings
- ◆ special materials e.g. stainless steel, aluminum
- ◆ flanges
- ◆ access doors
- ◆ built in transitions
- ◆ removable splitters
- ◆ flow measuring stations
- ◆ for details of above and more special options see Special Construction Options (pg. 3.33 to pg. 3.37).

### TO SPECIFY

See example specification located in the Selection/Specification section.