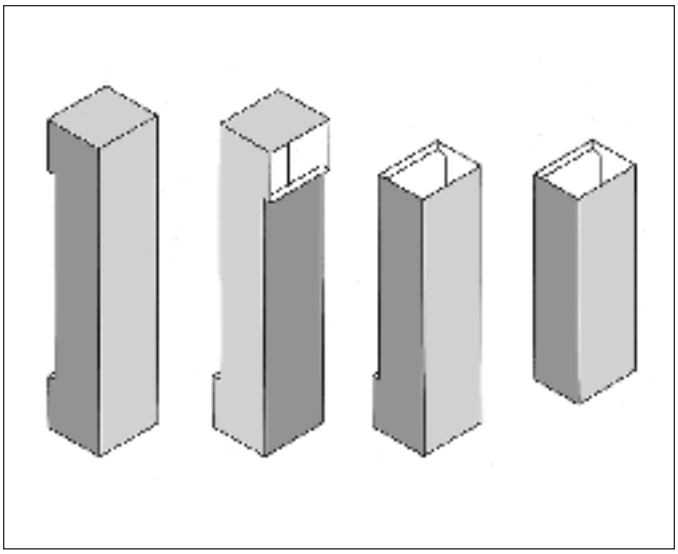
SILENCER SHEETS

DESCRIPTION

Vibro-Acoustics' CT silencers are designed to reduce speech intrusion into adjacent rooms via connecting ducts and return and supply air openings. They use acoustic grade glass fiber as the principle sound-absorbing mechanism. Acoustical splitters, sometimes called baffles, are used for optimal mid-frequency range attenuation. Perforated metal protects the glass fiber from erosion by the airflow.

Splitters vary in quantity and thickness, and air passages also vary in size. They are aerodynamically shaped to minimize pressure drop.



APPLICATION

- where speech privacy and freedom from distraction is required and airflow is necessary
- for private rooms (e.g. lawyers' and doctors' offices), offices, conference rooms, bathrooms, kitchens, halls
- typically located in ceilings, ducts, walls and even doors

FEATURES AND BENEFITS

- available in any cross-sectional dimensions to "fit-the-opening"
- common shapes include straight, elbow, "Z" and "U" configurations
- special applications available such as light troffer CT silencer
- standard lengths available: 24" and 30"; custom lengths also available
- low aerodynamic pressure drop for ease of door opening
- can be selected to minimize degradation of wall or barrier STC rating
- 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

CAUTIONS / WHEN NOT TO USE CT SILENCERS

- CT silencers are not intended to substitute for broad-band, high insertion loss silencers
- not intended for high volume or high velocity airflows
- normal silencer selection alternatives can not usually improve the STC rating of a wall or barrier. If properly selected they can minimize the degradation of the acoustic performance.
- a child or small adult may have difficulty opening a closed door if total pressure drop across the door is greater than 0.05" (slamming doors are dangerous)
- adequate speech privacy in ordinary situations occurs if speech levels are reduced at least 20dB below room background levels
- critical applications involving music or highly secure speech privacy demand thorough acoustical analysis. Consider attaining a qualified Acoustical Consultant (See SAS 18)

SILENCER SHEETS

TESTING
Vibro-Acoustics' 4th generation aero-acoustic laboratory was the first laboratory 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
Factors affecting selection include:
- degree of speech privacy required
- wall or barrier sound transmission class (STC rating)
- background noise levels in the receiving room
- short circuiting of sound paths through doors, holes for piping, electrical services, etc.
- adjoining opening size, shape and path length
- airflow rates to permit easy door opening

For the most economical selections call our application engineers at 1-800-565-8401.
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STANDARD CONSTRUCTION FEATURES
- galvanized lockformed casing constructed to SMACNA standards
- 3" slip connection at each end
- aerodynamically shaped, perforated galvanized nose at inlet
- perforated galvanized splitters
- splitters filled with acoustic grade glass fiber under minimum 15% compression

SPECIAL CONSTRUCTION OPTIONS
- special materials e.g. stainless steel, aluminum
- grilles or other terminal devices
- access doors
- media protection: glass fiber cloth, film liner
- built in transitions
- 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.