

# SOUND CHAMBER

## ✦ Structure & Features

- This is installed at the outlet or inlet side of AHU and fan to adjust fluid turbulence and reduce sound. The SCG type is used for low-speed duct, and the SCP type is used for high-speed duct.
- The structure of our sound chamber is strong, and a hanger bracket is installed for the convenience of work. Our sound chamber can provide sound effect by differentiating the selection and installation method for interior materials according to the main frequency of AHU and Fan.

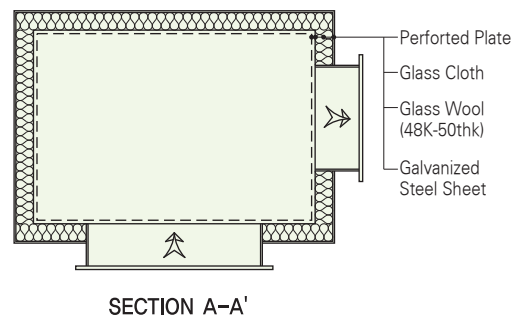
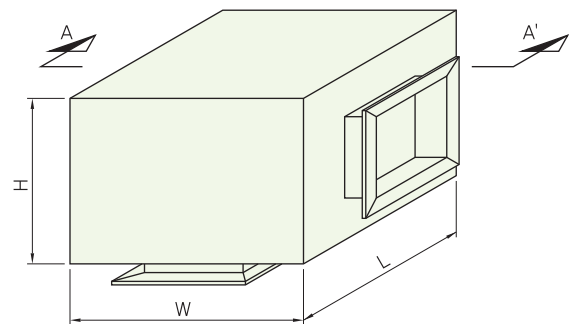


## ✦ Chamber Type

- The SCG type is for glass board/glass cloth protection.
- The SCP type is for glass board/glass cloth/perforated steel plate.

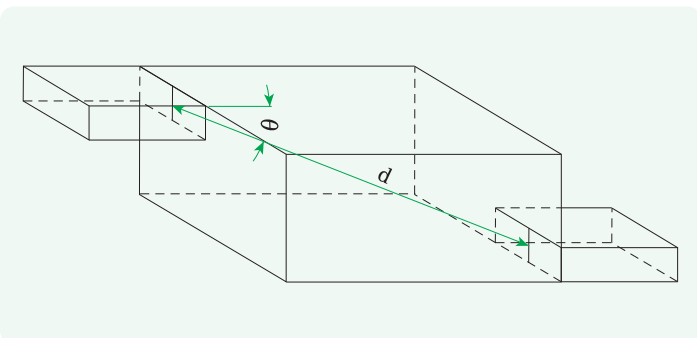
## ✦ Absorption effectiveness

- The sound reduction level of the sound chamber is proportional to the sound-absorbing ratio of interior materials and the installation area, and is in inverse proportion to the duct outlet area. Also, this can obtain excellent sound reduction at medium & high frequency area.



## ✦ Sound Reduction Level of Sound Chamber

- Sound Attenuator of sound chamber shall be generally calculated in accordance with below formula. At lower frequencies, the actual attenuation exceeds the calculated value by 5 to 8 db because of sound reflection at the entrance and exit of the chamber.



$$Attenuation = 10 \log \left[ \frac{1}{S_e (\cos \theta / 2\pi d^2) + (1 - \alpha / \alpha S_w)} \right]$$

$S_e$  = Cross Section of Plenum Outlet( $m^2$ )

$S_w$  = Plenum Wall Area( $m^2$ )

$\alpha$  = Sound-absorbing Ratio

$d$  = Inlet to outlet Distance( $m^2$ )

$\theta$  = Tilt Angle