

# ASC ACOUSTIC COFFERED BEAM CEILING

ACOUSTIC SCIENCES CORPORATION

## Surface Mount Acoustical Baffle Grids



- Fire Rated
- Easy Layout and Installation
- Retains a Lively Ambiance
- Removes Crosstalk
- Works Great on T-Bar Ceilings
- Or on Gypboard Ceilings



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## PRODUCT OVERVIEW

### Two Separate Challenges One Effective Solution

#### Challenge one:

The design called for the room to have a polished floor, lots of glass windows, and a gloss painted gypsum ceiling. The room looks stunning, featuring the latest architectural designs.

#### Challenge two:

The room will be used by large groups of people, such as a conference room or a restaurant. The abundance of hard surfaces present in the room will create an intolerable noise condition when occupied by a group of people.



#### Client Requires:

- Room should have a lively but controlled sound
- Glass walls, hard surface panels, hard surface floors, no carpet possible
- Crowd noise control to allow table conversation during busy hours
- Needs bright, lively ambiance to allow a buildup of background noise floor during off hours



#### The Solution:

ASC Acoustic Coffered Ceiling Grid applied to the ceiling will retain 85% of local ambiance while at the same time attenuate 35% of the crosstalk noise.

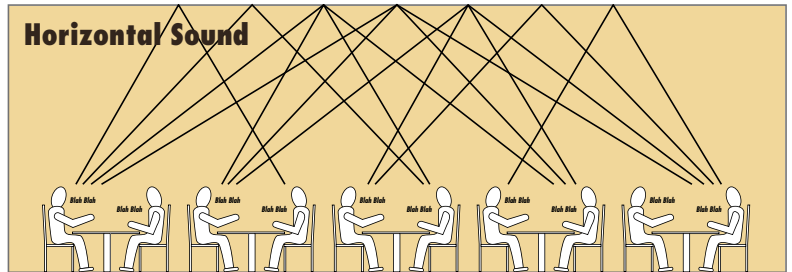
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## CROSSTALK CONTROL

### Two Different Kinds of Sound Reflection

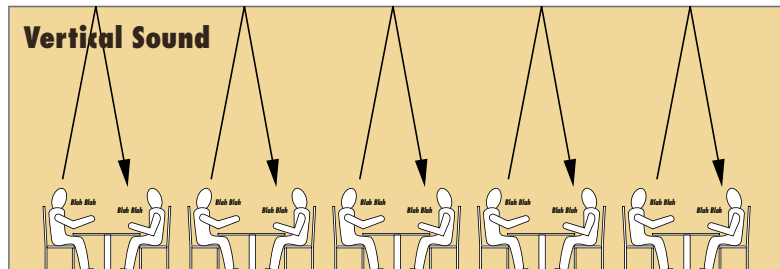
#### Overview:

Sound bounces around a hard surfaced room in all directions. Add multiple groups of people all trying to talk to each other, and the noise floor quickly rises to deafening levels. As each party has to talk louder to be heard, the noise rises. This is called, in acoustical terms, the “Cocktail Party Effect”. For the purposes of noise control and speech intelligibility, sound reflection is either vertical, or horizontal.



#### Horizontal Reflection:

As each separate conversation takes place in the room, sound reflects horizontally, jumping across the room. This is what we define as crosstalk. In some circumstances, it's actually easier to hear the conversation from across the room, instead of the one right in front of you.

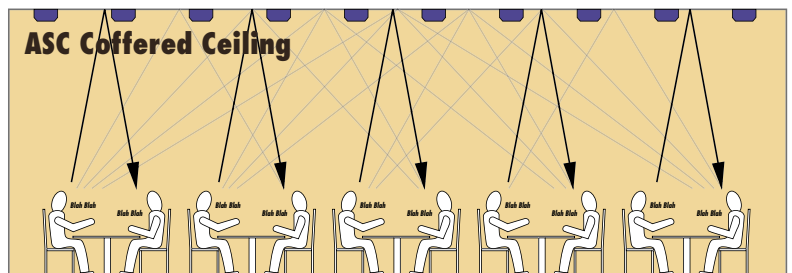


Any large, flat ceiling will reflect sound horizontally, including T-bar ceilings. Add polished hard floors and large areas of glass, and the reflection is magnified exponentially. Slow down the horizontal sound reflections through ceiling mounted, distributed absorption and diffusion.

#### Vertical Reflection:

This is the reflection we want to retain, as this creates the bright ambiance. Even though each party hears a good amount of direct sound, without the vertical room reflection, it would sound hushed and two dimensional. This is not desirable in most venues except perhaps libraries.

The ideal acoustic approach seeks to retain as much vertical reflection of vocal frequency sound as possible.



#### ASC Acoustic Coffered Ceiling

Applied to the ceiling in a grid pattern, the acoustic effect is a calmer, yet locally lively sound within the room.

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## KEY FEATURES

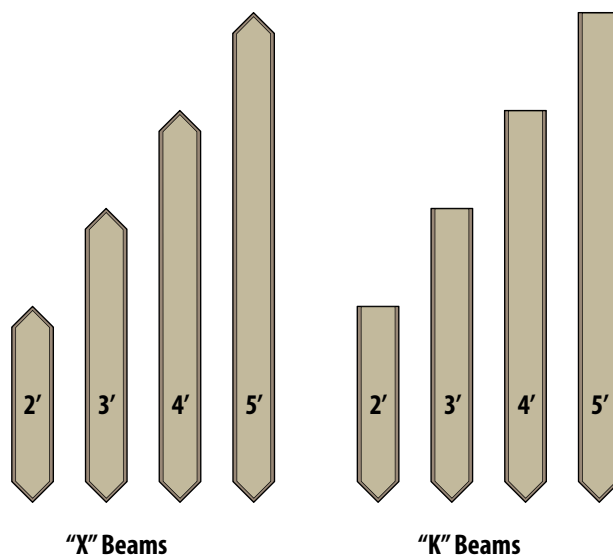
### Distributed Acoustics for Large Room Noise Reduction

#### Overview:

The ASC Coffered Beam Ceiling is engineered to provide evenly distributed noise control for large rooms. By using a grid pattern that extends across the entire ceiling, less overall acoustic absorption still maintains effective noise control.

#### Other Key Features:

- Class A Fire Rated Components
- Covered With 100% Recycled Fabric
- Easy to Install Using Acoustic Tile Adhesive
- Magnetic Version for T-Bar Grids
- Fully Encapsulated 6 lb. pcf Fiberglass Core
- Easy On-site Cutting for Perfect Fit and Finish
- Easy Backventing for In-wall Bass Absorption



#### Easy to Install:

The ASC Coffered Beam Ceiling is made up of "K" Beams and "X" Beams, each with an assortment of common sizes. The "K" Beams can be field cut to perfectly fit your ceiling.

