

# Hemiffusor™

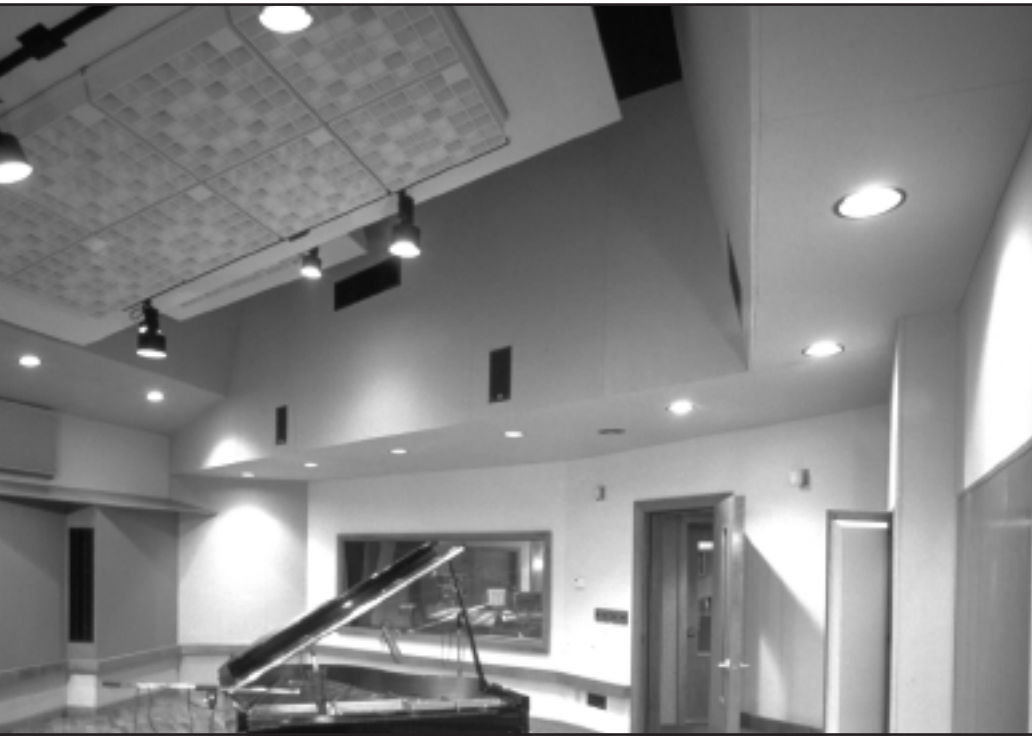


Photo Courtesy of Walters-Stork Design Group



*The First Two Dimensional QRD® is now more affordable than ever before - ideal for Home Theaters and Project Studios.*

Conventional acoustic treatments have relied on absorption for reflection control. Unfortunately, this can “deaden” the room and make it unsuitable for speech or music. Diffusive ceilings are one of the most effective ways to simultaneously control room reflections and provide a natural ambiance. The Hemiffusor™ uniformly scatters sound arriving from any direction into many directions, providing ideal distribution and coverage. Its unique shape creates an attractive, visually interesting acoustical surface.



*Maximize The Surround Experience*

# Problem and Solution

## Problem

Specular reflections from flat, hard surfaces cause strong reflections that corrupt speech intelligibility and degrade music quality. Typically, fabric wrapped absorptive panels are used to control interfering reflections, with the undesirable side effect of deadening the space.

## Solution

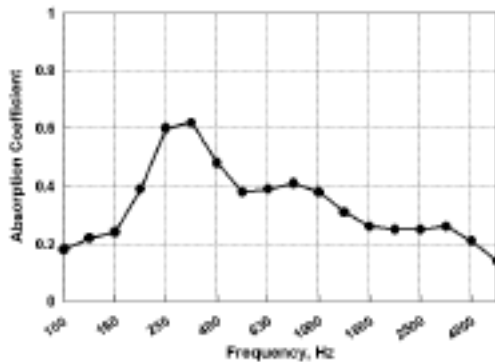
The Hemifusor™ is the first and most affordable 2D QRD®. It offers twice the reflection attenuation of the 1D QRD®, because it uniformly scatters sound into a hemisphere. The Hemifusor™ provides uniform, omnidirectional, broad bandwidth diffusion in an attractive ceiling or wall design element.

Sound strikes a two dimensional diffusing surface ...



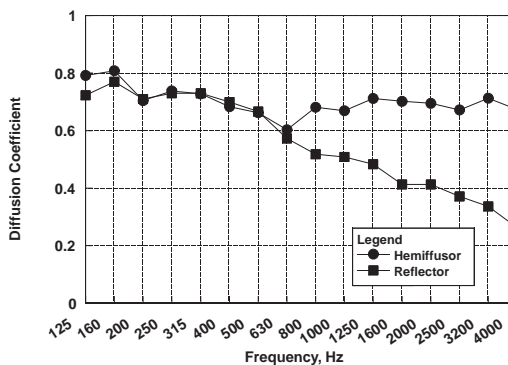
... and is uniformly scattered into a hemisphere.

# Performance Specifications



## Absorption

While the primary function of the Hemifusor™ is to provide broad bandwidth diffusion, it also offers a modest and beneficial amount of absorption across the frequency spectrum with emphasis at 315 Hz and 800 Hz.



## Diffusion

The Hemifusor™ offers significant diffusion compared to a flat reflector panel above the diffraction limit of 565 Hz, which is determined by the dimensions of the panel. Above this frequency, the graph indicates how the reference reflector becomes more and more specular as the frequency increases, whereas the Hemifusor™ provides a constant diffusivity.

# Installation

The Hemifusor™ can be wall mounted or suspended in a standard T-bar grid.

## FEATURES

- 2D QRD® reflection phase grating
- Uniform hemispherical scattering for all angles of incidence
- Simultaneously offers diffusion and moderate mid band absorption
- 2D QRD® provides twice the diffusive specular attenuation of a 1D QRD®
- Available in modular 2' x 2' panels

## BENEFITS

- The 2D QRD® provides phase variation in two orthogonal directions for uniform omnidirectional scattering
- Hemispherical scattering makes the Hemifusor™ ideal for ceiling applications
- The omnidirectional diffusive attenuation, coupled with moderate mid band absorption, provides ideal reflection control without deadening the space
- Modular 2' x 2' panels can be wall mounted or suspended in a 15/16" standard duty T-bar ceiling grid

## APPLICATIONS

*Project Studios, Home Theaters, Home Listening, High End Demo Rooms*

## SPECIFICATIONS

- Size: 23-5/8" (L) x 23-5/8" (W) x 4" (D)
- Finish is charcoal granite - paint
- For use where **non fire-rated** materials are acceptable.