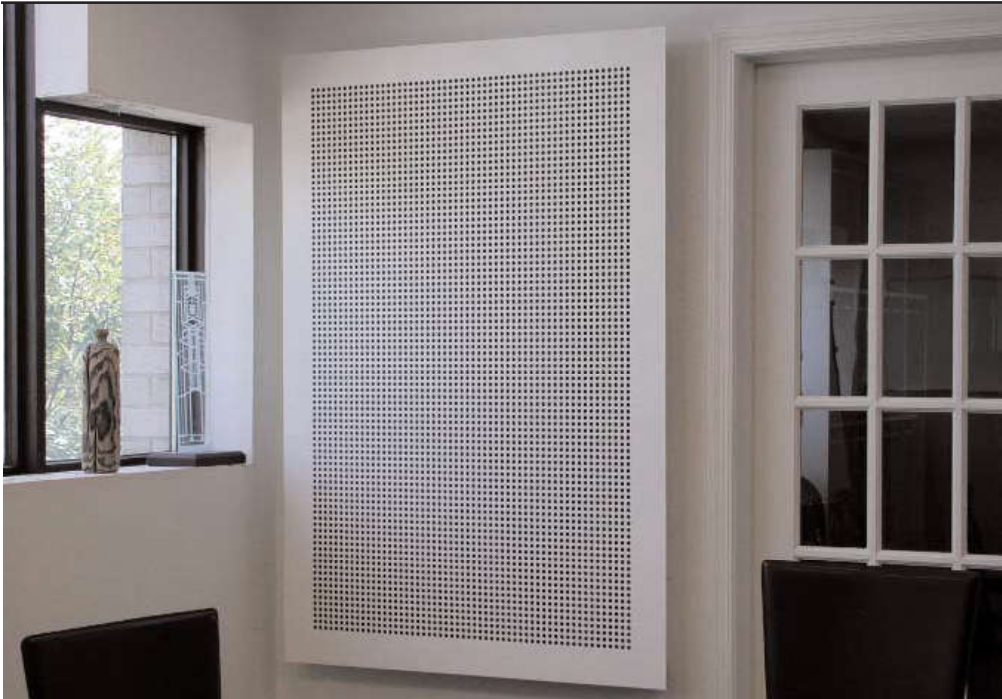


# Modex™ Broadband



*The First Full Spectrum Metal  
Plate Absorber From The  
Acoustical Industry's Leading  
Innovator.*

Home Theaters and dedicated listening rooms often exhibit poor low frequency response with significant emphasis at modal resonances. Porous surface absorption is ineffective at these modal frequencies, because the air motion near walls and in corners is essentially zero, resulting in very low absorption efficiency. RPG developed its Modex™ Plate to address these problems. However, in addition to low frequency modal control, small rooms require mid and high frequency reflection control as well. We are extremely proud to introduce a new and unique addition to the Modex™ line, called the Modex™ Broadband, which complements the Modex™ Plate. The Modex™ Broadband was developed by the Institute for Building Physics at the Fraunhofer Institute, and consists of a metal plate, embedded between two layers of damping material, surrounded by a perforated metal frame. The Modex™ Broadband offers broadband absorption effective from 50 - 5000 Hz in a thickness of only 4 inches. The Modex™ Broadband has an attractive powder coated metal finish and can be surface mounted on walls or ceiling. Every now and then a new technology comes along that changes everything. You will be astounded at the transients and clarity of sound once the Modex™ Broadband removes all of the masking low frequency reverberance. Now you can absorb more bass in less space!



**Maximize The Surround Experience™**

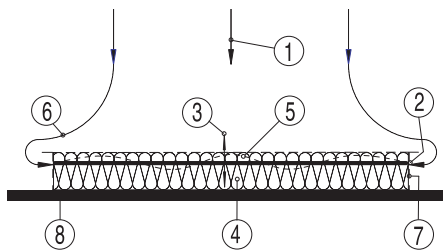
## Problem and Solution

### Problem

Small rooms like Home Theaters and dedicated listening rooms often suffer from low frequency modal problems and also require mid to high frequency reflection control. Absorption at all of these frequencies has not been possible with a single acoustical surface treatment.

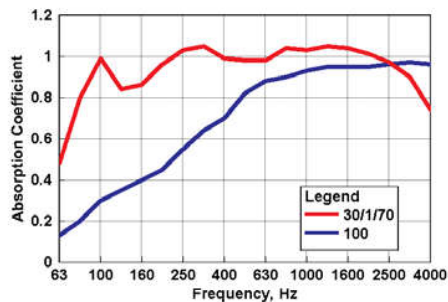
### Solution

The Modex™ Broadband solves these problems by offering significant absorption between 50 and 5000 Hz in a surface depth of only 4 inches. The Modex™ Broadband represents a new generation of acoustic bass management. Now you can absorb more bass in less space!

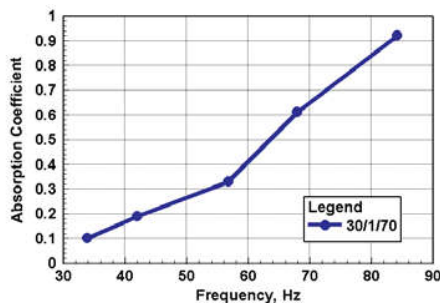


Sound (1) strikes the embedded steel plate (2) which pistonicly vibrates (3) against the spring (4), mounted on a rigid backing (8). The spring also damps plate bending modes (5) and absorbs high frequencies striking the face and mid frequencies, which diffract around the plate (6), through a perforated (7) metal enclosure.

## Performance Specifications



Absorption coefficient, as per ISO 354, for the 30/1/70 Modex™ Broadband.



Effective absorption coefficient of the Modex Broadband as determined from the decay times of the five lowest axial modes in a 5x4x3 m chamber.

### Low Frequency Testing ▲

Many published low frequency absorption coefficients are non-sense, because the accuracy of the absorption efficiency decreases at low frequencies in standard ISO 354 and ASTM 423 tests, due to inadequate diffusion. Therefore, additional testing has been carried out at the Fraunhofer Institute in large scale impedance tubes with a cross section of 1.6 x 1.2 m and a special approach monitoring the decay times of the lowest axial modes in a 5x4x3 m room, with and without the sample present on one of the opposing surfaces.

## Installation ►

The Modex™ Broadband is installed by attaching metal "L" brackets to the boundary surface and sliding the panel over and screwing to brackets. Panels should be installed at high pressure locations. In order of highest to lowest efficiency, this would be the intersection of three boundary surfaces, two boundary surfaces and on one boundary surface.

## FEATURES

- Three mechanisms of low frequency absorption
- 50 - 5000 Hz absorption efficiency
- High full spectrum absorption efficiency
- Thin profile
- Decorative perforated metal facing

## BENEFITS

- The patented Modex™ Broadband 30/1/70 damped metal system offers absorption via pistonic vibration, damped bending modes and porous absorption from the rear and front polyester
- The three absorption mechanisms offer absorption over a significant range of frequencies providing modal control with one product
- Absorption efficiency is high thus requiring fewer panels for effective modal control
- The thin 4" profile allows the Modex Plate to be used on exposed walls and behind T-bar and stretch fabric systems
- The perforated powder coated metal enclosure provides an attractive finish

## APPLICATIONS

All critical listening rooms, including recording studios, broadcast studios, vocal booths, home theaters, dedicated listening rooms, quality control rooms, CD mastering, film mix and dubbing stages and music practice rooms

## SPECIFICATIONS

- Size: 1 m (3'3") x 1.5 m (4'11") x 100 mm (4")
- Model Number: 30/1/70
- Weight: 70 Lbs
- Finish: White Powder Coating
- Pre-drilled "L"- shaped, metal mounting brackets supplied for easy installation.

