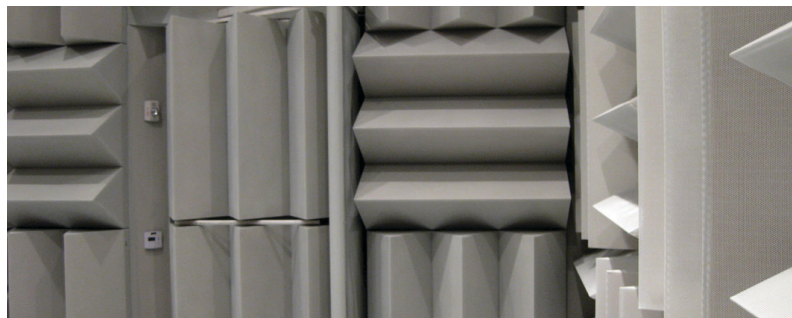


Case Study:

# IAC Acoustics Anechoic Chamber

Advance Micro Devices (AMD)  
Austin, Texas



## IAC Acoustics Provides a Hemi-Anechoic Chamber for Advance Micro Devices (AMD)

IAC Acoustics was contracted by AMD in Austin, Texas to design, manufacture, deliver, install, test and certify a custom hemi-anechoic chamber and control room for testing computer cooling fans to be utilized in their new high end workstations. AMD's test facility is located no more than a stone's throw away from Austin-Bergstrom International Airport.

### IAC Welcomes Acoustical Challenges

The chamber not only had to be designed in complete accordance with ANSI S12.55-2006/ISO 3745-2003 to achieve the free field environment for a 100 Hz cut off frequency, it also had to be designed to guarantee the ambient noise level in the chamber will be <10 dBA with an SWA 737 airplane taking off just above the test facility. To accomplish this acoustic challenge, IAC installed a 6" thick spring isolated jack up floor underneath an IAC 12" thick double wall acoustical shell constructed by IAC's time tested, field proven Noise-Lock® panels. The nominal outside dimensions of the chamber are 24 ft. long x 23 ft.

wide x 17 ft. high. To achieve the free field environment for a 100 Hz cut off frequency, one hundred and twenty IAC Metadyne™ wedges lined the walls and the ceiling.

### The Benefit of Metadyne Wedge System

The Metadyne™ wedge system offers many benefits to the end user. First and foremost, and owing to the very nature of their constructions, metal wedges offer superior resistance to physical abuse. Health and safety features are improved significantly as dispersion of glass fibers is substantially reduced with the containment of the fiberglass in-fill within the metal wedges. The free field properties of the chamber were verified by a standard draw away test conducted in accordance with the applicable sections of ASTM E336.

The anechoic test chamber was certified to meet all specified acoustic requirements and another very satisfied customer was given the signed IAC test report to prove it! The Metadyne™ wedge design is the best ever and is a result of continued product development and testing in the IAC Acoustics' Aero-Acoustic Laboratory. Another example of how laboratory development leads to exception results in the field.