

QUADRATIC RESIDUE DIFFUSER - MODEL Q

Acoustics First® Quadratic Diffusers provide balanced sound throughout a performance space and help reduce excessive sound concentration or “hot spots”. A true Quadratic Residue Diffuser is designed so that the reflected sound waves are harmonically dissociated from the source waves and spread over time to create a more neutral listening space.

Borrowing a feature from the patented Art Diffusor® design, the well bottoms of the Acoustics First® Quadratics are angled at 10 – degrees to extend the unit’s range and scatter higher frequencies that would otherwise reflect in a straight line-of-sight path, back into the room.

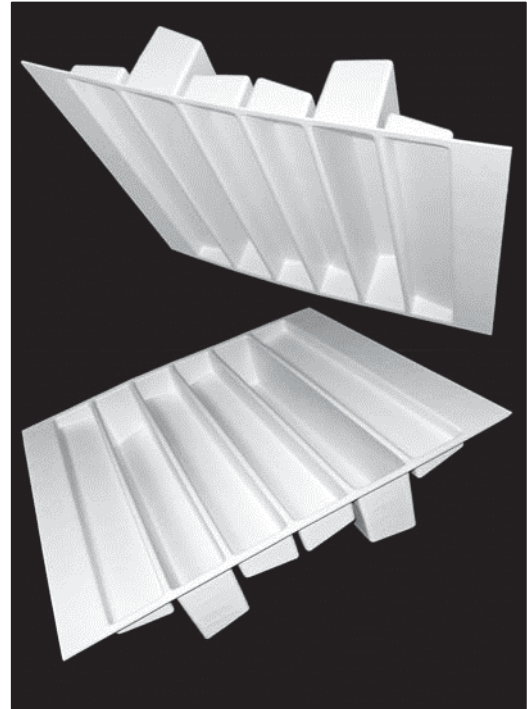
CONSTRUCTION:

Model Q: 1 Dimensional / Quadratic Residue Diffuser
Size: 23-5/8 x 23-5/8”
Depth: 4”
Weight: 3.75 pounds
Mount: Drop into T-Bar grid or wall recessed.
Material: Thermoplastic (White)
Bandwidth: 600 Hz to 4 kHz
Fire Rating: Class 1 (A) per ASTM E84
NRC: 0.30

Installation:

Quadratic Diffuser Ceiling Panels may be installed into heavy-duty 15/16” face lay-in ceiling grid systems. They may be flush-mounted recessed, or installed on a wall surface with suitable surrounding trim.

Although it is a one-dimensional diffuser and produces a directional hemispheric polar response, the units may be oriented in any direction and, by alternating 90 degree rotation, will provide two-dimensional diffusion outside of the near field.



Applications: Recording & Broadcast Studios · Live Music Venues · Practice/Rehearsal Rooms · Theaters & Auditoriums · Houses of Worship · Home Entertainment Rooms & more!

| Quadratic Residue Diffuser – Model Q Performance | | | | | | | |
|--|--------|--------|-------|---------|---------|---------|------|
| Test | 125 Hz | 250 Hz | 500Hz | 1000 Hz | 2000 Hz | 4000 Hz | NRC |
| Type E400 | 0.35 | 0.40 | 0.45 | 0.30 | 0.14 | 0.19 | 0.30 |
| Type E400 w/insulation | 0.38 | 0.39 | 0.45 | 0.31 | 0.13 | 0.16 | 0.30 |

**Note: Diffusion data available upon request*