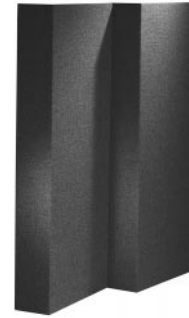


# Abflector™



*The First Hinged VDAC™ Absorptive Panel  
From The Acoustical Industry's Leading Innovator*

Interfering reflections from a critical listening room's boundary surfaces corrupt timbre and stereo imaging. Therefore, signal processing and image placement will not transfer accurately to other listening environments. The most effective way to minimize this form of acoustic distortion is to absorb the interfering reflections over a broad range of frequencies. To extend the low frequency absorption efficiency of conventional flat absorptive panels, RPG® developed the Abflector™. The Abflector™ is a novel and economical internally hinged, upholstered absorptive panel. It ships flat, but mounts with most of the absorptive material away from the boundary surface for improved low frequency absorption.



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## Problem and Solution

### Problem

Small rooms like Project Studios need a very efficient surface to absorb first order reflections over a broad range of frequencies. This is not possible with thin, flat, surface mounted porous fiberglass or foam panels.

### Solution

RPG®'s internally hinged Abflector™ ships flat for economy, but installs as a splayed wedge with a Variable Depth Air Cavity (VDAC™). This unique mounting improves bass response, increases the angle of incidence, and deflects high frequencies.

Three Abflectors™ mounted in series

Innovative hinged panel mounting improves bass response

VDAC™

## FEATURES

- Internal hinge
- VDAC™ technology
- Simultaneously offers diffusion and moderate mid band absorption
- Aesthetic splay design

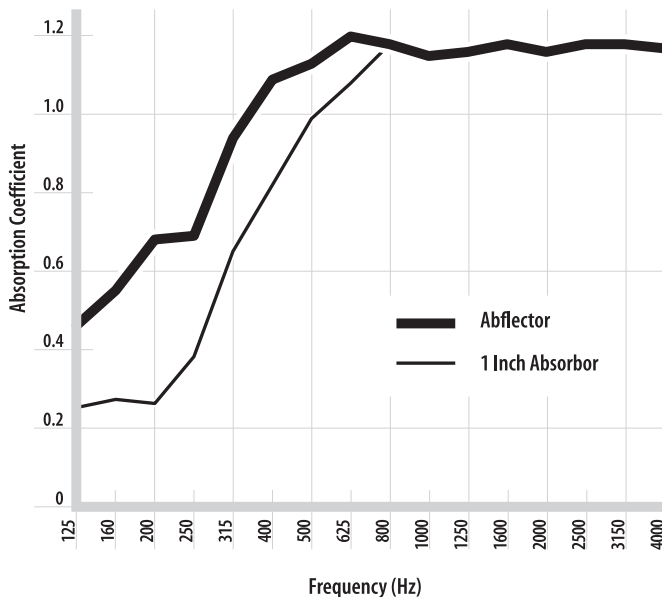
## BENEFITS

- The unique internal hinge allows the Abflector™ to be mounted with a Variable Depth Air Cavity (VDAC™). This mounting method eliminates the expense of field installed spacing systems for flat panels
- The internal hinge also allows the Abflector™ to be efficiently packaged and shipped flat to reduce shipping costs
- The different length panel segments form a visually interesting architectural splay, which adds elegance to the look of simple rectangular rooms
- The Abflector™ forms a splayed side wall surface, which increases the effective panel thickness and also deflects interfering reflected sound away from the sweet spot
- A wide range of fabric choices also complements the unique splay design
- The lightweight panels can be applied to walls, ceiling, or used as a floor standing panel

## Performance Specifications

### Absorption

The Abflector™ offers a Variable Depth Air Cavity (VDAC™) to improve bass absorption. The Abflector™ simulates the beneficial Reflection Free Zone™ effect, created by outwardly splaying side walls in a rectangular room. The graph illustrates how the Abflector's™ innovative hinged panel mounting exploits the advantages of the air cavity. Notice the significant increase in the low frequency absorption over that of a similar 1" thick flat panel, mounted directly to a boundary surface.



## Installation

The Abflector™ is easy to install with its attached hook and loop fasteners. Hardwood feet are also available for floor standing installation.

7' floor standing Abflector™ in hardwood base

## APPLICATIONS

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

## SPECIFICATIONS

- Sizes:
  - Wall mount: 47-1/4" (H) x 19" (W) x 6" (D)
  - Floor standing: 7" (H) x 19" (W) x 6" (D)
  - Base: 1-1/2" (H) x 19-5/8" (W) x 7-1/2" (D)
- Panel weight:
  - Wall mount: 5 lbs.
  - Floor standing: 9 lbs.
- Shipping weight:
  - Wall mount: Quantity 4: 23lbs.
  - Floor standing: Quantity 2: 25lbs.
- Standard fabric: Guilford of Maine FR701 #298
- Custom fabrics available

## Standard Unit Construction

4' height x 1' 7" width nominal (4' x 1' 6-5/8") x 5-11/16" deep  
Guilford of Maine FR701 #298 fabric  
6 lb. density fiberglass

## Product Options\*, \*\*

Any acoustically transparent fabric approved by RPG® Diffusor Systems, Inc.

## 4' Option Sheet

### Note:

*All dimensions are allowed a tolerance of  $\pm 1/16$ " due to material shrinkage and variations.*

*\* Most options merit an increase or, in some cases, a decrease in pricing compared to the standard unit.*

*\*\* Due to material availability, RPG® reserves the right to change options at any time. Therefore, any special options—whether listed or not—must be confirmed prior to submittal of P.O. and acceptance verified by RPG® Diffusor Systems, Inc.*



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## Standard Unit Construction

7' height x 1' 7" width nominal (7' x 1' 6-5/8") x 5-11/16" deep  
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## Fabric Wrapped Acoustical Panel

## 4' CSI Specifications

- A** The Fabric Wrapped Acoustical Panel shall be the model 4' Abflector™ as manufactured by RPG® Diffusor Systems, Inc., Upper Marlboro, MD 20774. Tel: 301-249-0044, Fax: 301-249-3912.
- B** The Fabric Wrapped Acoustical Panel shall be fabricated from molded fiberglass cores. Edges shall be square and plum to within a tolerance of 1/16". The Fabric Wrapped Acoustical Panel shall be of the thickness and sizes specified.
- C** Fiberglass cores shall have a minimum density of not less than 6lbs/ft<sup>3</sup> (or specify other desired density).
- D** Provide mechanical clip mounting system (or specify other desired mounting such as construction adhesive or hook and loop fasteners) as per manufacturer's recommendations.
- E** Absorption Coefficients and Noise Reduction Coefficient for the product shall be measured by an independent, accredited NVLAP facility according to the test methods as defined by ASTM C 423 and ASTM E 795. Random incidence Absorption Coefficients for a 1" thick, 6lbs/ft<sup>3</sup> density product in a Type A mounting shall be as follows:

125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	NRC
0.46	0.69	1.13	1.15	1.16	1.17	1.00

- F** Flame Spread and Smoke Developed shall be tested by an independent, accredited NVLAP facility according to the test methods as defined by ASTM E 84 and NFPA 255. The Fabric Wrapped Acoustical Panel shall have a composite Flame Spread Rating of less than 25 and a Smoke Development of less than 450.
- G** The Fabric Wrapped Acoustical Panel shall be supplied in a Guilford of Maine FR701 fabric, color to be as specified.
- H** The overall dimensions shall be 4'(H) x 1'6-5/8"(W) x 5-11/16"(D) and weigh no more than 3 pounds.



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### Fabric Wrapped Acoustical Panel

- A** The Fabric Wrapped Acoustical Panel shall be the model 7' Abflector™ as manufactured by RPG® Diffusor Systems, Inc., Upper Marlboro, MD 20774. Tel: 301-249-0044, Fax: 301-249-3912.
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- C** Fiberglass cores shall have a minimum density of not less than 6lbs/ft<sup>3</sup> (or specify other desired density).
- D** Provide mechanical clip mounting system (or specify other desired mounting such as construction adhesive or hook and loop fasteners) as per manufacturer's recommendations.
- E** Absorption Coefficients and Noise Reduction Coefficient for the product shall be measured by an independent, accredited NVLAP facility according to the test methods as defined by ASTM C 423 and ASTM E 795. Random incidence Absorption Coefficients for a 1" thick, 6lbs/ft<sup>3</sup> density product in an Type A mounting shall be as follows:

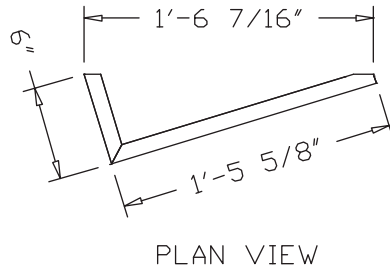
125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	NRC
0.46	0.69	1.13	1.15	1.16	1.17	1.00

- F** Flame Spread and Smoke Developed shall be tested by an independent, accredited NVLAP facility according to the test methods as defined by ASTM E 84 and NFPA 255. The Fabric Wrapped Acoustical Panel shall have a composite Flame Spread Rating of less than 25 and a Smoke Development of less than 450.
- G** The Fabric Wrapped Acoustical Panel shall be supplied in a Guilford of Maine FR701 fabric, color to be as specified.
- H** The overall dimensions shall be 7'(H) x 1'6-5/8"(W) x 5-11/16"(D) and weigh no more than 3 pounds.

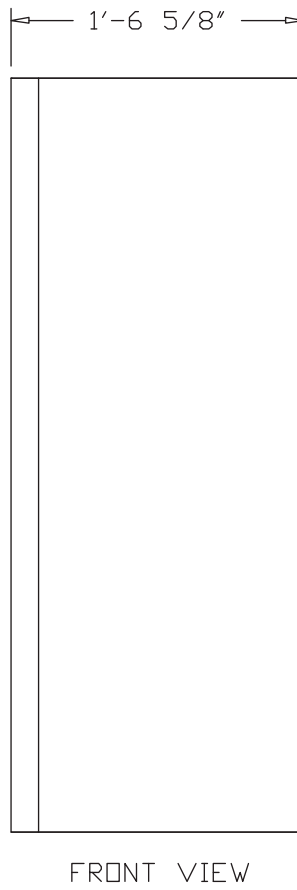
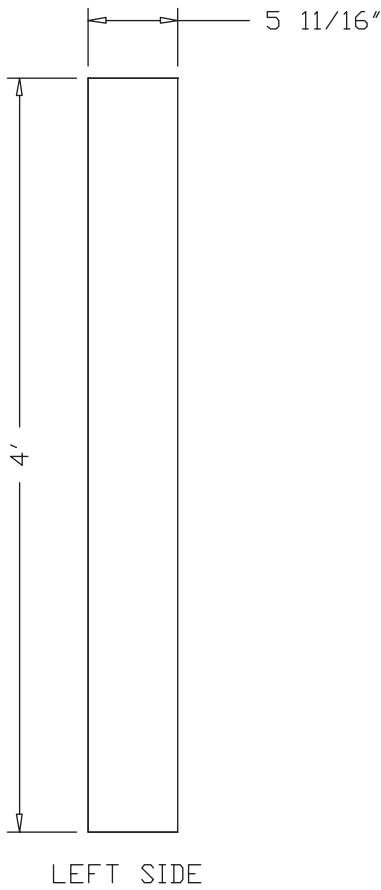
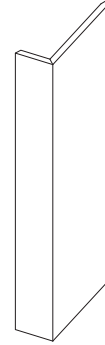


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# Abflector™



4' Cutsheet



Project: \_\_\_\_\_

Specifier: \_\_\_\_\_

Drawing Number: \_\_\_\_\_

Date: \_\_\_\_\_

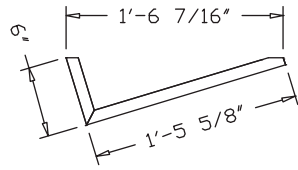
Tolerance:  $\pm 1/16"$



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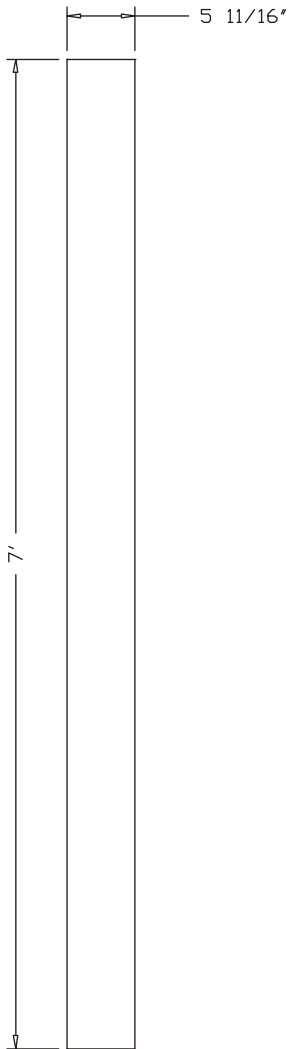
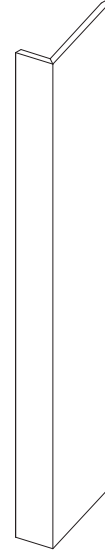


# Abflector™

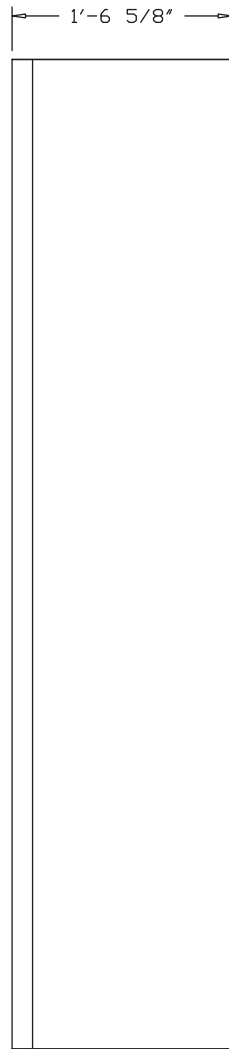


PLAN VIEW

## 7' Cutsheet



LEFT SIDE



FRONT VIEW

**Project:**

**Specifier:**

**Drawing Number:**

**Date:**

*Tolerance: ± 1/16"*

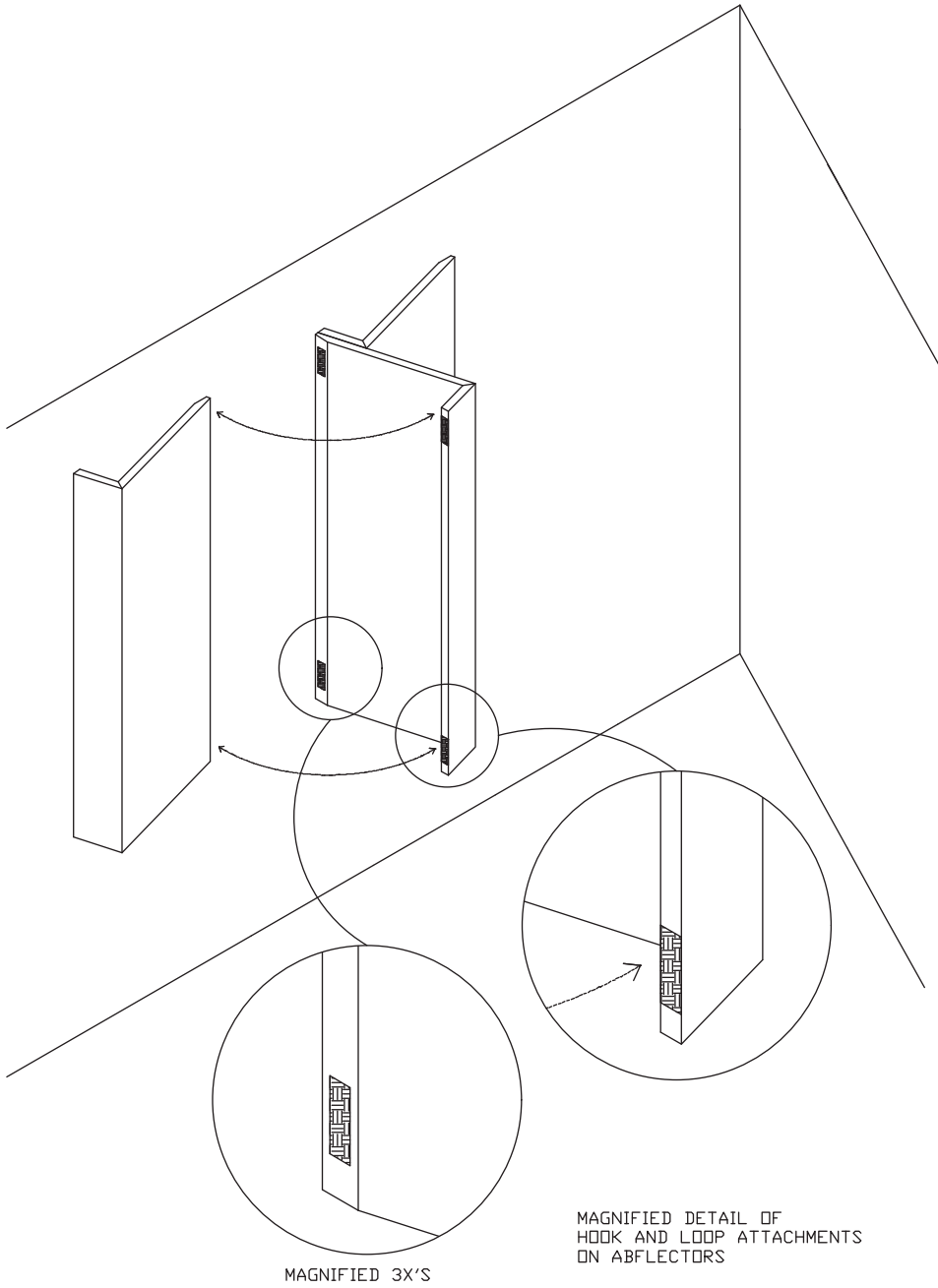


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# Abflector™

4' Surface Mount



**Project:**

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**Specifier:**

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**Drawing Number:**

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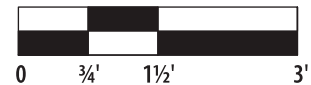
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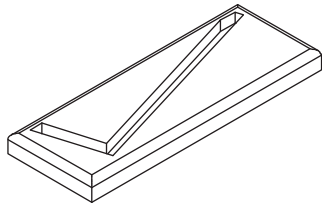
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*All dimensions should be field verified prior to installation.*

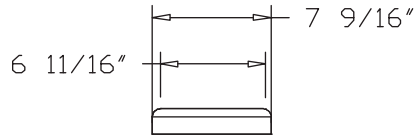


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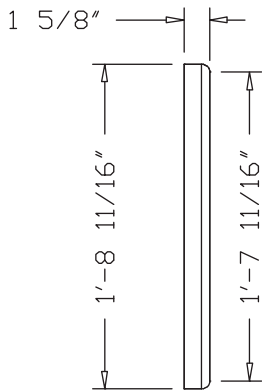
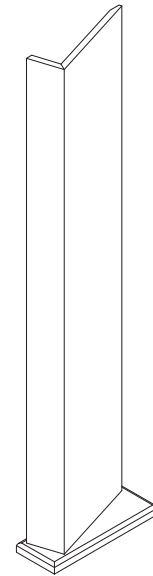


S.W. ISOMETRIC VIEW

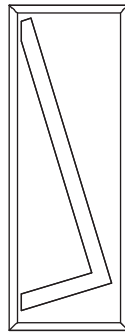


PLAN VIEW

**7' Floor Stand**



LEFT SIDE



FRONT VIEW

VIEWS OF ABFLECTOR STAND

NOTE: CREATE 7/8" DADO FOR ABFLECTOR PLACEMENT.

**Project:**

**Specifier:**

**Drawing Number:**

**Date:**

*All dimensions should be field verified prior to installation.*

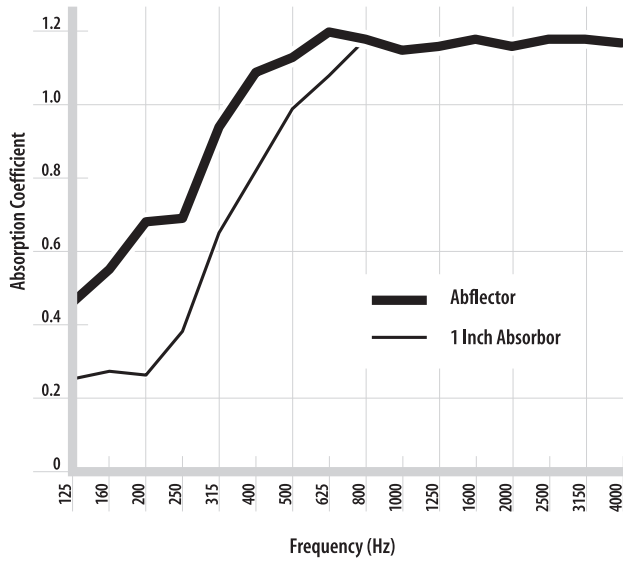


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# Abflector™

## Absorption Coefficients



Hz	Absorption Coefficient
125	0.46
160	0.55
200	0.68
250	0.69
315	0.94
400	1.09
500	1.13
630	1.20
800	1.18
1000	1.15
1250	1.16
1600	1.18
2000	1.16
2500	1.18
3150	1.18
4000	1.17



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