the diffusion treatment you will ever need

ACOUSTIC SHELLS

www.acousticshell.net

• THEATRES
• AUDITORIUMS
• CONCERT HALLS
DYNAMICFLOW® AcSh® / WOODFOIL® AcSh®

Based on works and experiments in the field of sound wave diffusion and the positive aspects that result from the presence of diffusers in rooms, we have built this acoustic diffuser. Therefore, we are presenting new design proposals which are less common in diffusion structures designed for mobile use.

The DYNAMICFLOW® AcSh® and the WOODFOIL® AcSh® are an easy-to-install portable acoustic diffusion shells meant to be used in certain types of musical concerts. It is a piece that changes the room’s acoustics by enhancing its features.

Diffusion shells are an excellent treatment elements used in large volume rooms, such as theatres and auditoriums. They may also be used outdoors for the performance of concerts by large orchestras or just recitals.

The installation of these acoustic diffusion components is meant to project the non-amplified original sound from the stage towards the audience.

This will enable to hear the sound that comes directly from the sound sources and instruments, without the characteristic coloration inherent to the use of electro-acoustics. These shells enable the stage and the room to be within the same space and not separate in two by the mouth of the stage. These pieces do not need any preparation prior to their installation, just a free stage with good access.

They must be coupled and multiplied in such a way that is adequate to each project in order to obtain a diffusing area that is proportionate to the space in question.

MAIN FEATURES

Depending on the space available on the stage, more or less elements may be used in order to form the shape of a perfect shell.

Built on a modular configuration with 120 x 120cm pieces, up to four modules can be coupled in height, thus totally filling the surface of 480 x 120cm.

Its scattering features improve with the application of more modules. The DYNAMICFLOW® AcSh® and the WOODFOIL® AcSh® are a large-sized diffusers that provides a very homogeneous diffusion within the sound and diffuse spectrum.

Diffusion with scattering effect:

- Emphasizes the sound diffusion at a wider covering angle, effective at a shorter incidence distance.
- Features: efficient at a shorter distance; less sound level; wider incidence angle.

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<th>Mounted Models</th>
<th>Models in the Flight-case</th>
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<tbody>
<tr>
<td>DYNAS4</td>
<td>1.64m x 1.24m</td>
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<tr>
<td>WFLAS4</td>
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</tbody>
</table>

SCATTERING EFFECTS (example for the DYNAS4)

SIDE VIEW

A - Vertical diffusion with scattering effect.

TOP VIEW

B - Horizontal diffusion with scattering effect.

SIDE VIEW (single unit)

C - Vertical diffusion with scattering effect.

TOP VIEW (single unit)

D - Horizontal diffusion with scattering effect.

STANDARD COLOURS

- YELLOWS
- ORANGE
- RED
- GREEN
- BLUE
- PURPLE
- LILAC
- BROWN
- CREAM
- BLACK
- GREY
- WHITE

- PINE
- OAK
- CHERRY
- MAHOGANY
- WENGE
- BLACK-BROWN
**EFFECTUSER® AcSh® / WOODFOIL® AcSh® / DYNAMICFLOW® AcSh®**

The diffusing acoustic panels are acoustic treatment elements intended for large volume rooms, such as theaters or auditoriums with a stage where orchestral concerts or music recitals take place. These acoustic diffusing components are meant to project the nonamplified original sound from the stage to the audience. This will enable people to hear the sound coming directly from its source, without the electro-acoustic inherent characterization or colouring. This panel is also capable of enabling the stage and the room to be within the same space and not separate in two by the scope of the room. JDCAVI"s EFFECTUSER® and WOODFOIL® have been designed at the specific scale of these needs. Due to its shape and size, the EFFECTUSER® and the WOODFOIL® have a high diffusion coefficient on medium-low frequencies. The EFFECTUSER® is a large-sized diffuser that provides a very homogeneous diffusion within the diffuser and sound spectrum. Manufactured in ABS with a rigid frame, this piece can be coupled and multiplied in order to suit each project's demands. When mounted, several modules should be grouped in order to obtain an area that is proportional to each space. Mounting: They can be hung from the ceiling in a strategic position in order to obtain sound diffusion in the required angles. They can also be mounted with a metallic rigging system from the stage ceiling. These modules are filled with steel cubes to enable mounting accessories. Their low weight makes mounting easier. As with any other JDCAVI® diffusion panel, the EFFECTUSER® and WOODFOIL® can also be applied on false ceilings, flat ceilings, or walls. The combination of the various EFFECTUSER®COMBI® diffusing pieces must be optimised so as to obtain a diffusion as uniform as possible in the entire room.

**MAIN FEATURES**

To adjust the diffusing properties of the EFFECTUSER®COMBI® to the room where this product is applied, the placement of the pieces must be taken into account in order to obtain its best performance, bearing in mind these two types of diffusion:

**Diffusion with compression effect:**

It emphasizes the sound diffusion with a smaller covering angle, effective at a longer incidence distance. **Features:** efficient at a longer distance; smaller incidence angle; higher sound level.

**Diffusion with scattering effect:**

It emphasizes the sound diffusion with a wider covering angle, effective at a shorter incidence distance. **Features:** efficient at a shorter distance; less sound level; wider incidence angle.

**Mounted Models**

<table>
<thead>
<tr>
<th>Model</th>
<th>H</th>
<th>W</th>
<th>D</th>
<th>Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFX 180</td>
<td>1.2m</td>
<td>1.8m</td>
<td>0.30m</td>
<td>40.5</td>
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<tr>
<td>WFL 125</td>
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<td>1.2m</td>
<td>0.18m</td>
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<tr>
<td>DYN 125</td>
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<td>1.2m</td>
<td>0.13m</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Model in the Flight-case</th>
<th>H</th>
<th>W</th>
<th>D</th>
<th>Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eff 180</td>
<td>1.44m</td>
<td>1.03m</td>
<td>0.15m</td>
<td>60</td>
</tr>
</tbody>
</table>

**SCATTERING EFFECTS (example for the EFX 180)**

A - Horizontal diffusion with compression effect.
B - Horizontal diffusion with scattering effect.
C - Vertical diffusion with compression effect.
D - Vertical diffusion with scattering effect.
E - Horizontal diffusion with compression effect.
F - Horizontal diffusion with scattering effect.
G - Vertical diffusion with scattering effect.
H - Vertical diffusion with compression effect.

**STANDARD COLOURS**

- YELLOW
- ORANGE
- RED
- GREEN
- BLUE
- PURPLE
- LILAC
- BROWN
- CREAM
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INTRODUCTION

When performing at a conventional theatre, symphonic and chamber orchestras, as well as soloists and opera singers, encounter problems related to the projection of the sound and voice, due to the noise that is produced on the space of the stage box and the absence of diffusion materials. The sound that is produced by the orchestra is dispersed heterogeneously in all directions, depending on the instruments. It needs an acoustic shell to channel it towards the audience. In order not to lose the sound level and all the musicality of orchestras, acoustic shells should be placed around them.

To project the sound, it is necessary to install diffusion panels shaped like a shell, open towards the audience, in order to scatter the sound in that direction. The EFFECTFUSER® ACSh® acoustics may be installed on the stage’s ceiling and the DYNAMICFLOW® AcSH® may be installed on the floor around the musicians.

AS® ACoustic SHELL®

AS® Acoustic Shell® is a brand that sells and rents out highly specialised acoustic shells which are conceived in the laboratoy R&D of the Portuguese company JOCAVI® Acoustic Panels Ltd. The AS® brand belongs to the JOCAVI® Group. We prepare projects to advise on our products by testing the best shell for each space. We run out through “long term rental” contracts for events to be carried out on a continuous basis on the same spot.

We exist for permanent installation in theatres and auditoriums where the main activity requires the use of these acoustic diffusers. We also carry out the installation and acoustic checking and enter into maintenance contracts for our shells. We are AS® Acoustic Shell®, a company specialised in acoustic diffusor shells.

VERSATILITY OF A SHELL

Unlike the most ancient and original open-air acoustic shells made of stone in roman amphitheatres, today’s acoustic shells used in performance rooms have to be versatile and discreet, so that their presence does not hinder the use of the space for the most varied types of performances.

Our shells have been developed and built with light and attractive materials which facilitate as much as possible their practical use. They adapt to the orchestra by increasing the number of the necessary modules and by adjusting their adaptation according to the type of performance. It is a stage equipment that is easily assembled and disassembled and that is imperceptible when it is not being used.

FIXED SHELLS®

EffectFuser® AcSh® / Woodfoil® AcSh® / Dynamicflow® AcSh®

The EFFECTFUSER® AcSh®, DYNAMICFLOW® AcSh® and the WOODFOIL® AcSh® fixed acoustic shells consists of lateral background and ceiling modules. These elements enable several angularizations which are defined in order to guarantee the incidence towards the audience.

These modules are fixed to the stage’s ceiling with durawall and steel cable structures. They are moved through a system of electric engines which allow to pre-program some points on the most usual positions. When not in use, shells are gathered on the stage’s ceiling and go completely unnoticed.

This type of study is available by our company and prepared through simulation of ray tracing, the only way to preview the objective. Therefore, we assure the homogeneous scattering levels of the acoustic energy and the subsequent increase of reverberation time in the room.

BENEFITS FOR THE ORCHESTRA

Acoustic comfort for a musician or musical director is fundamental. It is impossible to win a battle against a room with bad acoustics.

It is frustrating situation for musicians, maestros and sound technicians when that happens and there is nothing within their reach that they can do.

The quality of the interpretation of musical pieces may be enhanced when conditions are excellent. The acoustic shell harmonizes the sound and enables musicians to listen to each other clearly, thus making their performance pleasant and perfectly harmonious. It also allows to highlight or mildly moderate the several groups of instruments of the orchestra in accordance with the Maestro’s taste.

REMOVABLE SHELLS®

Dynamicflow® AcSh® / Woodfoil® AcSh®

DYNAMICFLOW® AcSh® and the WOODFOIL® AcSh® removable acoustic shells are composed of four 1200mm x 1200mm modules which are set on a flight case type box. This box is part of the basic structure of the shell itself and there is no need to store the box while the shell is being used. Two people are enough to install it on the stage floor.

This shell adapts to each orchestra according to the number of musicians, groups of instruments and the stage area by adjusting the quantity of modules to be used.

It is versatile since it allows several configurations in accordance with the musical formation, as well as the easy access of musicians and instruments and a quick assembly and disassembly.

This shell is easily carried on its wheeled box. When not in use, it is kept in storage in order not to interfere with the good functioning of the performance room.

FEATURES

• The AcSh® shell system gives the dimension of a big concert hall.
• AcSh® provides excellent options of acoustic shells for any performance room.
• AcSh® provides a wide range of applications in theatres, auditoriums or smaller concert spaces.
• The AcSh® products from JOCAVI® have the right practical solutions for what you want.
• The AcSh® shells are an added-value, since they provide acoustic features which are precise, simple to install, attractive and are available in all colours.
• AcSh® Acoustic Shells are a must in theatres and auditoriums where classic music performances are programmed.

OFFICIAL PARTNER

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