Profiled Acoustic Screens

Application
Acousticabs Profiled Screens are designed for use where a large acoustic barrier is required on a permanent basis around fixed external noise sources. The profiled acoustic system is suitable for all types of major environmental noise control. Typical applications are noise control barriers around electrical substations, air handling equipment and delivery areas for supermarkets and factories.

Description
Screens are a composite construction built around a core of noise absorbing acoustic slab loaded with high density Acousticurtain. The level of acoustic performance is tailored to suit the application by altering the core make up. The outer surface of the screen is faced with profiled steel. The inner surface is faced with APP profiled acoustic liners. The acoustic core is protected with a water repellent membrane. Depending on size and environmental conditions, screens may be supported on a concealed internal RHS frame or on exposed hot rolled structural steelwork.

Finish
Profiled sheeting and cappings are colourcoated in a choice of standard colours. APP liners are available in pre-galvanised or polyester powdercoated finish.

Acoustic Performance
Indicative acoustic performance is shown below. In practice the level of performance achieved is influenced by the position and size of the screen in relation to the sound source and to the measurement point.

Sound Reduction Index

<table>
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<tr>
<th>Hertz:</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1K</th>
<th>2K</th>
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<td>Construction Type S: dB:</td>
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<td>16</td>
<td>21</td>
<td>28</td>
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Absorption Coefficient

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<th>250</th>
<th>500</th>
<th>1K</th>
<th>2K</th>
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</thead>
<tbody>
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<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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Note
Special designs are available to provide enhanced low frequency performance in applications such as electricity substations.
Profiled Screen

Colourcoat profiled
Exterior cladding

UB Structural Frame
to suit site conditions,
wind, loading etc.

APP profiled
Acoustic Liner

Acoustic sound absorbing
lining (thickness and spec varies)

Acoustic curtain loading to
suit required performance

Typical Screen construction detail

Alternative screen arrangements