FirstFence®
HIRE & SALES

# EchoReflect Acoustic Screening

## 2.4m x 3.0m Specification Sheet

SPC-ACOU-048B



Call our Expert Sales Team for more information.

First Fence Ltd | Kiln Way, Woodville, South Derbyshire, DE11 8EA
01283 512 111 | www.firstfence.co.uk | sales@firstfence.co.uk

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## Natural Elegance, Acoustic Excellence

Our acoustic fencing provides a high-performance solution to noise pollution across the residential, educational, and commercial sectors. Made from premium wood, it delivers essential sound insulation while enhancing the surrounding landscape.

2.4m x 3.0m EchoReflect acoustic screening works with timber or steel posts. **Please note that website post sizes are suggestions only; actual requirements should be verified by a structural engineer to suit site conditions**. This kit is for on-site assembly or as a pre-assembled panel, requires a dig-in installation, and does not include fixings.

**Bespoke post calculations can be provided for specific sites to ensure panel, post and foundation suitability with our PostPro service. Contact the First Fence team for assistance.**

**The average noise reduction achieved in laboratory tests is 30dB, giving the highest rating of B3 - the rating required for highways schemes.**

### Key Features

- Incised Vertical Timber Board Structure
  (Timber structures reflect sound helping reduce levels)
- Conforms and Tested to BS EN 1793
  (Highways England Requirement for noise reducing devices)
- UC4 Durability
  ( Wood Treated to BS 8417, incised for ground contact)
- Compliant with Highways Sector Scheme 2C
  (Standard for Pre-fabrication of environmental barriers)
- 30 Year Desired Service Life
  (Manufacturer offers this subject to correct installation)

### Suitable For

- Urban Noise Reduction
- Residential Privacy
- Commercial & Industrial Spaces
- Schools & Educational Institutions
- Transportation Infrastructure

### Specification

| | |
|---|---|
| System Height (Installed) | 2.4m |
| Bay Width | 3.0m |
| Kit Style | Loose Kit, Pre-Assembled |
| Ground Installation | Dig In Only |
| Material | Incised, pressure treated timber, Tanalised to UC4 |
| Source | Supplied by a reputable UK sawmill (FSC certified) |

**Features: Sawn finish**
**How it works: Reduces noise through reflection**




### Choose your Style

**EchoReflect comes with loose components for constructing one bay or as a pre-assembled panel for quick installation. Works with steel or timber posts.**



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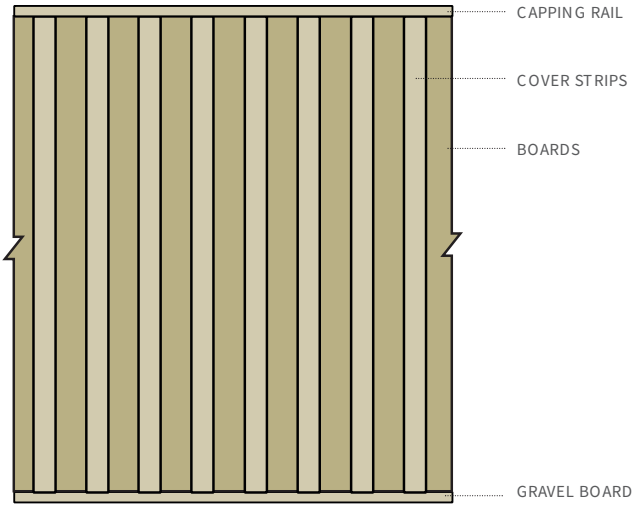
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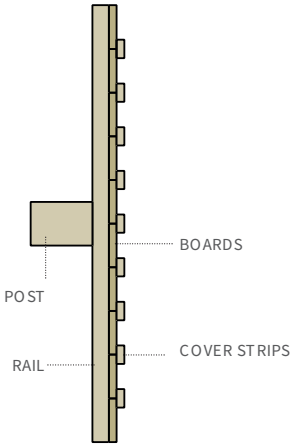
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### FRONT VIEW

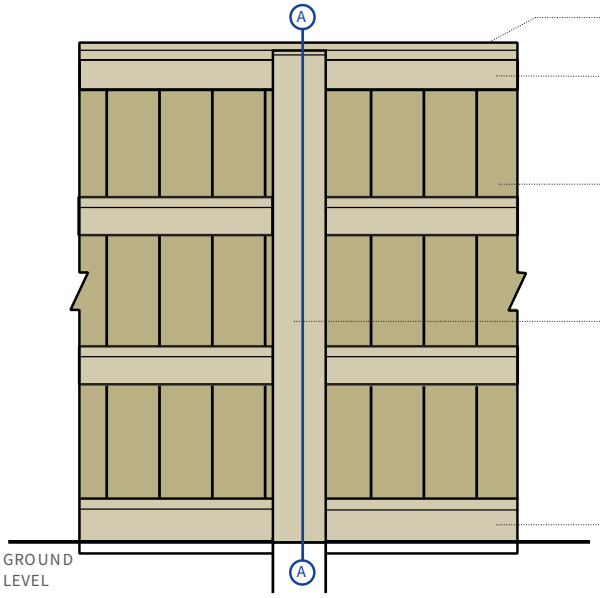



50mm of the gravel board buried below ground

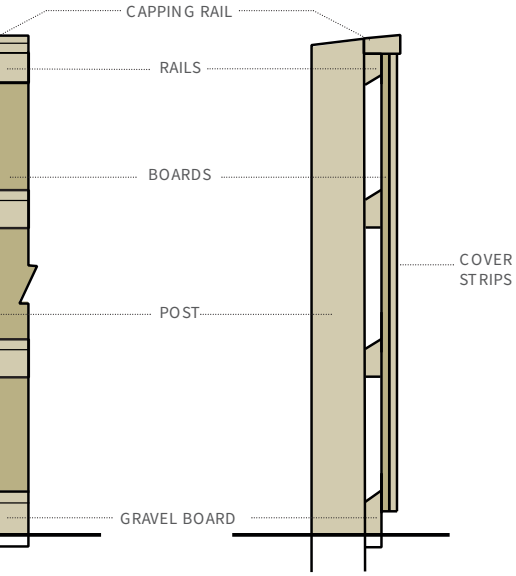
### PLAN VIEW
(Capping omitted)




### REAR VIEW




### SECTION A-A




50mm of the gravel board buried below ground

Structural calculations may be required by qualified persons. No responsibility can be accepted by using this design without professional advice.

Design in accordance with specification for Highway Works Clause 2504. Treatment to Sector Scheme 4.

Reflective sound screen fitted to timber or steel posts.

Height of sound screen variable to suit specific locations. Post centres at 3.0m unless otherwise specified.

Conforms and tested to BS EN 1793. Also tested and complies to BS EN 1794-1 and BS EN 1794-2.

Complies with Highways Sector Scheme 2C for the prefabrication of environmental barriers

Average density 26.4kg/m$^2$ (excluding posts).

Tanalised™ TIMBER

## What's included in the loose kit:

| | |
|---|---|
| EchoReflect Straight Boards (150mm x 22mm x 2.3m) | x20 |
| Timber Gravel Board (3.0m x 150mm x 50mm) | x1 |
| Capping Rail (3.0m x 100mm x 50>38mm) | x1 |
| Horizontal Rail (100mm x 50mm x 3.0m) | x3 |
| Cover Strip (2.3m x 75mm x 22mm) | x20 |

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## 2.4m x 3.0m Specification Sheet

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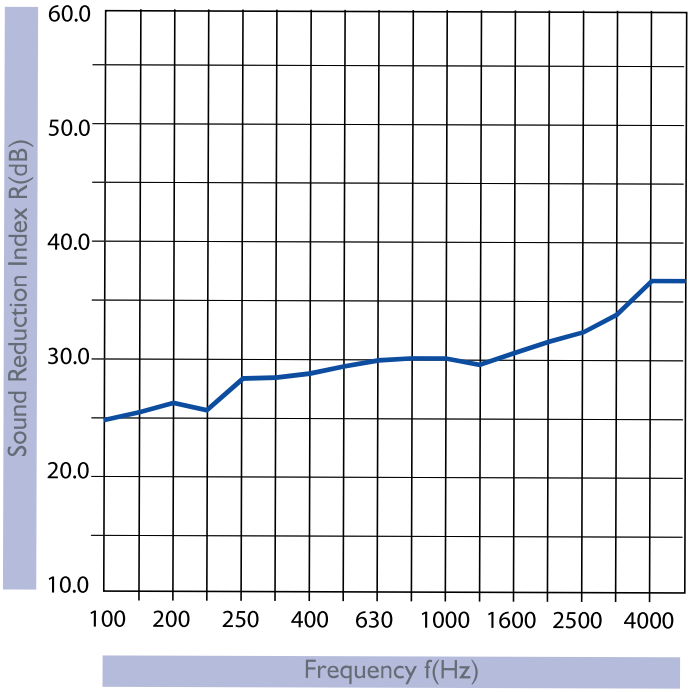
# EchoReflect Reflective Acoustic Screen

## BS EN 1793-1: 1998
## Acoustics - Road Traffic Noise Reducing Devices
## Test Method for determining the acoustic performance

| SOURCE ROOM | | RECEIVING ROOM | |
|---|---|---|---|
| Volume: | 136m² | Volume: | 220m² |
| Condition: | clean | Condition: | clean |
| Type: | small reverberation room | Type: | large reverberation room |
| Location: | acoustic transmission suite | Location: | acoustic transmission suite |

| | | | |
|---|---|---|---|
| TEMPERATURE: | 17.8°C | | |
| HUMIDITY: | 58.6% | | |
| $DL_R$: | 30 | CATEGORY: | B3 |

| FREQUENCY HZ | R |
|---|---|
| 100 | 24.7 |
| 125 | 25.3 |
| 160 | 26.3 |
| 200 | 25.8 |
| 250 | 28.5 |
| 315 | 28.4 |
| 400 | 29.0 |
| 500 | 29.6 |
| 630 | 30.0 |
| 800 | 30.1 |
| 1000 | 29.8 |
| 1250 | 29.7 |
| 1600 | 30.6 |
| 2000 | 31.6 |
| 2500 | 32.1 |
| 3150 | 33.7 |
| 4000 | 36.9 |
| 5000 | 37.1 |




Test results for HALES SAWMILLS LTD – REFLECTIVE SOUND SCREEN, issued by: University of Salford (Acoustics Test Laboratory) UKAS accredited test laboratory No. 1262

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Reflective sound screen fitted to timber or steel posts.

Height of sound screen variable to suit specific locations. Post centres at 3.0m unless otherwise specified.

Conforms and tested to BS EN 1793. Also tested and complies to BS EN 1794-1 and BS EN 1794-2.

Complies with Highways Sector Scheme 2C for the prefabrication of environmental barriers

Average density 26.4kg/m² (excluding posts).

Tanalised™ TIMBER

# EchoReflect Acoustic Screening

Installation

## Follow the installation guide for your EchoReflect Acoustic Fencing

### Step 1

Determine how many bays and posts you require by using our product calculator.

### Step 2

Dig your post holes. Post centres are 3.0m. Ensure all posts are securely set in the ground using a suitable structural anchoring method. The foundation must be capable of supporting the weight of the acoustic panels and resisting local wind loads.

Use a taut line from one end of the fence run to the other to maintain a straight line.

Acoustic screens often act as 'sails', so the foundation must be capable of supporting the weight of the acoustic panels and resisting local wind loads.

Consult with a qualified structural engineer to ensure the installation meets local wind loading and soil requirements.

### Step 3

Fit the gravel boards onto the posts along the bottom of the barrier. Make sure they are buried 50mm into the ground.

### Step 4

Face fix the cant rails onto the posts at an equal spacing, securing using 64mm stainless steel nails.

### Step 5

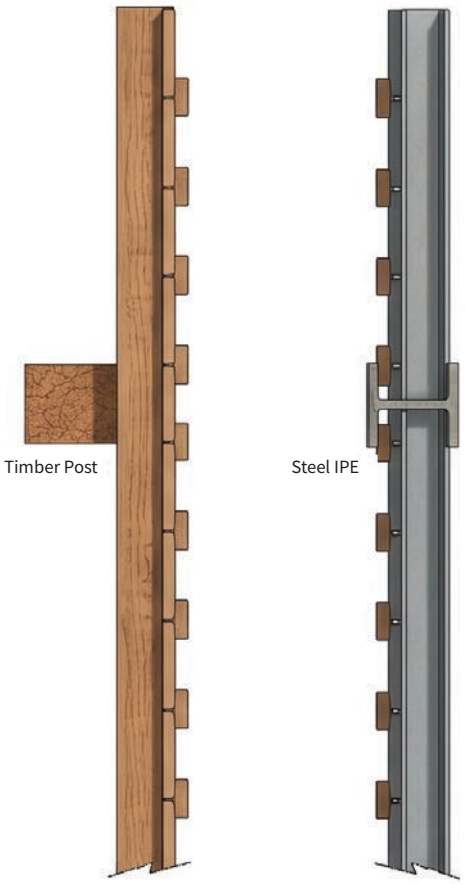
Now the main support structure of your barrier is in place, you can attach the vertical boards. The boards need to be nailed onto the cant rails butted up to each other.

### Step 6

Cover strips then need to be attached over the joints where the panels butt up together, using stainless steel nails

### Step 7

Finally, attach the capping rail with stainless steel nails to the top of the fence to provide a neat finish and allow water to shed in the direction of the post.




Cross section view from above of installation with timber posts and steel IPE.

The panel sits inside the IPE. First Fence steel IPEs come with a timber wedge for a perfectly tight finish.

The IPEs do not come with drilled holes, please get in touch if you require pre-drilled fixing holes

### Additional Information

These panels are suitable for painting with a breathable stain or paint. It's advised to clear vegetation where the acoustic fencing will be installed. Avoid installation in areas prone to water accumulation.

### Use our PostPro Calculation Service

Tailored Structural Reports: Site-specific reports can be provided for your height and ground conditions. Add PostPro to your order or get in touch for details of this add-on service.

Call our Expert Sales Team for more information.

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