FirstFence®
HIRE & SALES

EchoGroove Acoustic Fencing

3.5m x 3.0m Specification Sheet

SPC-ACOU-022B



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 timber acoustic fencing combines the organic beauty of premium wood with high-performance sound reduction. Designed to integrate perfectly into high-end residential, transport, educational and commercial landscapes, it provides a powerful barrier against noise pollution without sacrificing aesthetic appeal.

3.5m x 3.0m EchoGroove 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, 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 by the EchoGroove system in laboratory tests is 29dB, giving the highest rating of B3 - the rating required for highways schemes.

Key Features

- Tongue & Groove Timber 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)	3.5m
Bay Width	3.0m
Kit Style	Loose Kit
Ground Installation	Dig In Only
Material	Incised, pressure treated timber, Tanalised to UC4
Source	Supplied by a reputable UK sawmill (FSC certified)

Features: Planed T&G Boards

How it works: Reduces noise through reflection

Simple Installation

Each kit comes with loose components for constructing one bay. The tongue and groove style enables quick and installation. Works with Dig In steel/timber posts.



Call our Expert Sales Team for more information.

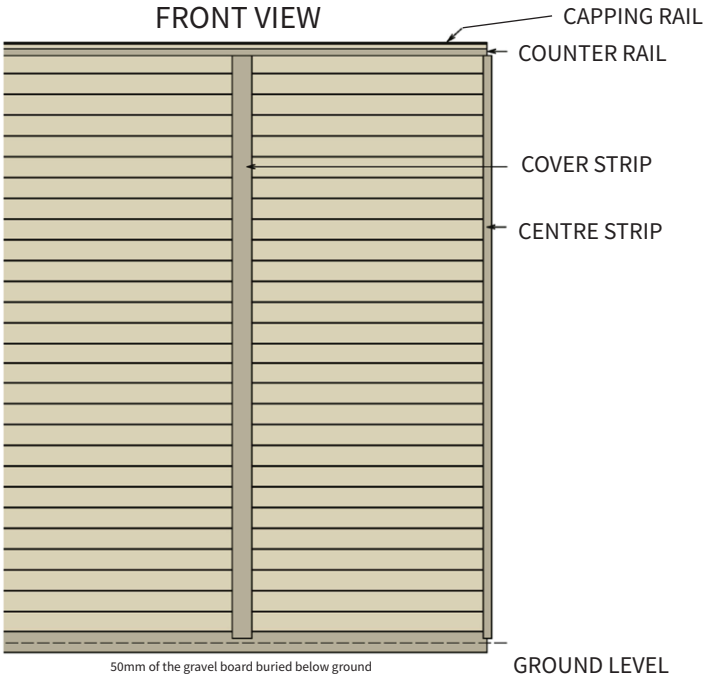
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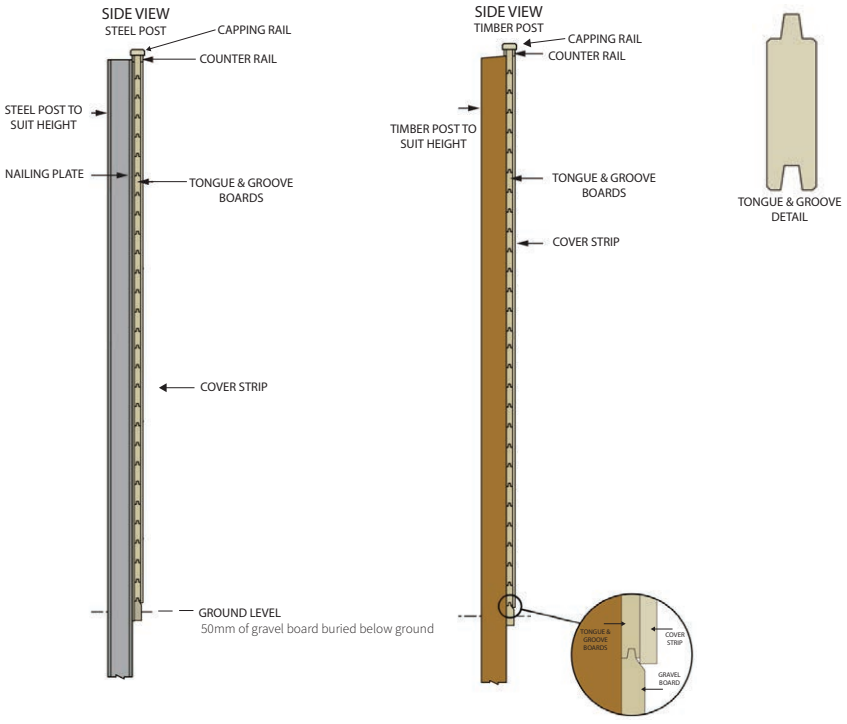
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Structural calculations available for individual site conditions.

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.

Average density 30.7kg/m^2 (excluding posts).

Tanalised™ TIMBER

What's included in this kit:

Acoustic Tongue & Groove Boards 3.0m x 150mm x 38mm)	x28
Gravel Board (Timber, 3.0m x 150mm x 38mm)	x1
Capping Rail (3.0m x 125mm x 38mm)	x1
Counter Rail (3.0m x 75mm x 38mm)	x2
Cover Strip (3.5m x 125mm x 38mm)	x1
Centre Strip (3.5m x 75mm x 38mm)	x2

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EchoGroove Reflective Acoustic Fencing

BS EN 1793 -1: 1998

Acoustics - Road Traffic Noise Reducing Devices

Test Method for determining the acoustic performance

SIZE: 8.64m²

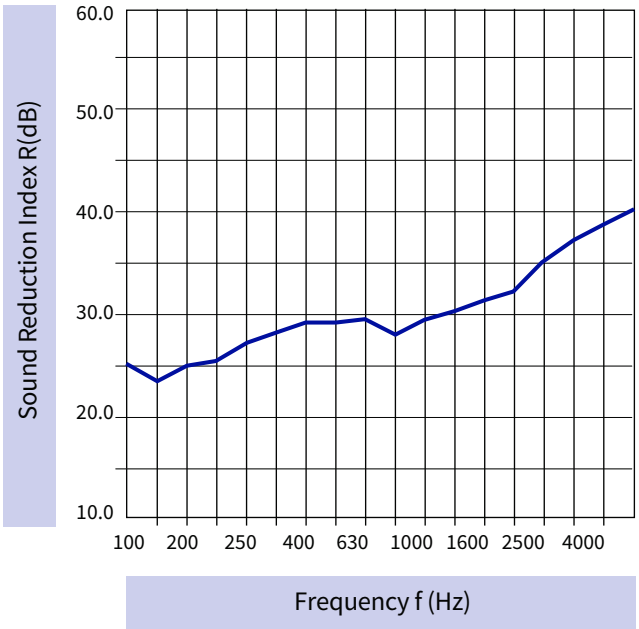
SOURCE ROOM		RECEIVING ROOM	
Volume:	136m²	Volume:	220m²
Condition:	clean	Condition:	clean
Type:	small reverberation room	Type:	large reverberation room
Location:	acoustic transmission suite	Location:	acoustic transmission suite

TEMPERATURE: 18.8°C

HUMIDITY: 43.1%

DL_R: 29 CATEGORY: B3

FREQUENCY HZ	α_S
100	25.7
125	23.8
160	25.0
200	25.6
250	27.3
315	28.2
400	29.3
500	29.1
630	29.5
800	28.0
1000	29.5
1250	30.4
1600	31.4
2000	32.3
2500	35.4
3150	37.4
4000	38.9
5000	40.5



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

Structural calculations available for individual site conditions.

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

Reflective sound screen fitted to timber or steel posts.

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Tanalised™ TIMBER

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BS EN 1793-1: 1998

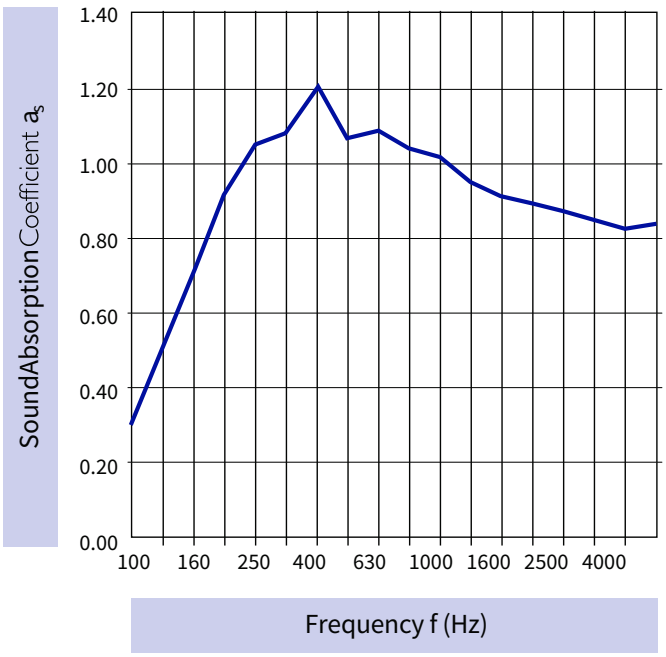
Acoustics - Road Traffic Noise Reducing Devices

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

SAMPLE OUT:	Temperature 20.1°	Humidity: 42.4%
SAMPLE IN:	Temperature 19.0°	Humidity: 42.2%
DL_a:	15	CATEGORY: A4

FREQUENCY HZ	α_S
100	0.30
125	0.51
160	0.71
200	0.91
250	1.04
315	1.07
400	1.20
500	1.06
630	1.08
800	1.02
1000	1.01
1250	0.95
1600	0.92
2000	0.91
2500	0.86
3150	0.84
4000	0.81
5000	0.83



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Installation



Follow the installation guide for your EchoGroove 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. 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

Face fit the gravel boards onto the posts using 64mm A2 stainless steel nails along the bottom of the barrier. Ensure they are buried 50mm into the ground. For attaching boards to steel posts, use the timber nailing plate (fixed with self-tappers) and 64mm stainless steel nails. For attaching to timber posts, use 64mm stainless steel nails. Do not use galvanised nails.

Step 4

Fit the horizontal tongue & groove acoustic boards to the posts and build up to required height by interlocking them together. The top board will have no tongue on to leave a flat finish.



Step 5

Fix the counter rails onto the front and back of the fencing, then the cover strips over the joints of where the tongue & groove boards butt up together, using stainless steel nails.

Step 6

Fix the centre strip front and back of the bay in the centre of each bay.

Step 7

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



Additional Information

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

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