

Acoustic Noise Barriers – More Information

Features

- Attractive timber construction
- Unique tuning fork design posts
- Special fixings clamp acoustic boards between posts
- Can accommodate changes in level or profile
- Complete with capping and counter rail

Benefits

- Up to 28dB reduction in noise*
- Easy to install
- Able to be installed on uneven or sloping ground
- 25 year guarantee

Applications

- Residential
- Commercial properties
- Construction sites
- Sports venues

Our Acoustic Noise Barriers include a unique timber 'tuning fork' design posts and 125mm boards featuring an interlocking 'vee' coupled with a tongue and groove. This special profile has been carefully developed to locate the boards in such a way that eliminates gaps that sound could easily travel through, even when boards shrink and expand with changes in the weather. The fence is finished with a capping and counter rail.

The barrier not only helps to block noise but also reflects noise away.

Additional advantages are:

- Lower labour requirements
- More efficient storage and transport
- Quicker build on site
- Improved acoustic protection

The timber posts used for most applications up to 4.0m high are a unique tuning fork design that traps the boards to eliminate noise leakage through gaps. For barrier heights from 2.1m - 4.0m the timber posts are reinforced with a steel spur, coated black.

The Acoustic Noise Barrier system has been vigorously tested and developed to reach the high standards required by our customers.

| Sound reduction achieved in tests on acoustic barriers | | | | |
|--|------------|-----------------|-------------------|-----------------|
| Distance from barrier | No barrier | Fence height 2m | Fence height 2.5m | Fence height 3m |
| 5m | 67.6dB | 53.6dB | 50.7dB | 49.8dB |
| 10m | 50.2dB | 50.2dB | 48dB | 47.7dB |
| 15m | 47.7dB | 47.7dB | 45.5dB | 45.1dB |
| 20m | 46dB | 46dB | 43.3dB | 42.8dB |



EST. 1969

Crawley Mill, Dry Lane, Witney, Oxfordshire, OX29 9TJ

sales@soundservice.co.uk

VAT NO: GB 434 5018 73 REG NO: 960986

Tel : 0845 363 7131

Fax : 01993 779569

The data above shows the results from measurements taken during a field trial, which simulated the latest British Standard test procedure for acoustic fencing in a practical location. The generated noise source was directly behind the barrier - barrier length 9.6m

*Certified laboratory results: Rating according to BS EN 1793 – 2:1998 Category = B3 Laboratory sound reduction 28dB Approximate Superficial Mass 28kg/m²

12k Value Acoustic Fence

Features

- 123mm boards
- 20mm x 125mm x 4.8m thick boards
- Attractive timber construction
- Only available in reflective
- Achieves the planning/architects normal acoustic specification of 10 - 12kg per sq mtr

Benefits

- Able to be installed on uneven or sloping ground
- 25 year guarantee
- Easy to install

Applications

- Parks
- Schools
- Residential
- Demarcation
- Low - medium risk

A lighter 20mm thick board than our other acoustic fences, maintaining the same 123mm cover face. Planed tongue and grooved boards with small chamfers which form a 'vee' join between boards. Suitable for installation where the required noise reduction is lower than that which would be provided by the standard acoustic noise barrier - or where a superficial mass of 12kg/m² is specified.

The Value Acoustic Fence offers customers on a more restricted budget the opportunity to reduce the impact of unwanted noise via a value for money acoustic system.

Capping rail is 34 x 145mm x 4.8m, Counter rail size 34 x 70mm x 2.4m

Can be used with steel 'I' beam arrangement for additional strength.

This fencing system cannot be used with/upgraded to the Sound Barrier Extra (Absorptive).

Please note the 12k Value Acoustic Fence is not certified.

| Standard dimensions | | |
|---------------------|-------------|------------|
| Height | Post length | Spur Posts |
| 2.0m | 2.9m | N/A |
| 2.5m | 3.4m | 2.0m |
| 3.0m | 3.9m | 2.5m |
| 3.5m | 4.4m | 2.7m |
| 4.0m | 4.9m | 3.3m |

Standard Noise barrier plus Sound Barrier Extra

Features

- Timber construction
- Unique tuning fork design post or 'I' beam
- Special fixings clamp acoustic boards between posts
- Can accommodate changes in level or profile
- Complete with capping and counter rail
- Acoustic barrier with additional absorptive layer covered with protective membrane

Benefits

- Up to 32dB reduction in noise*
- Easy to install
- Able to be installed on uneven or sloping ground
- 25 year guarantee

Applications

- Residential
- Commercial properties
- Industrial
- Sports venues
- Railways

Both our Standard and Highway acoustic fence systems can be upgraded to the Extra system.

Also known as absorptive, as the barrier incorporates an absorptive layer, covered with a protective membrane on one side of the boards to further reduce noise by an average of 4dB giving the 32dB measured figure.

Sound Barrier Extra is ideal in applications where the screen is to be used to form a compound around a noise source or a noise source is surrounded with reflective surfaces such as high fencing and buildings. Also ideal where the noise source is in a tight confined space and can be open to secondary deflection.

The following sound reduction measurements were conducted at the AIRO (Acoustical Investigation & Research Organisation Ltd) Acoustic laboratory, using a purpose built sound transmission suite.

| Results | | | |
|----------------|----------------------|----------------|----------------------|
| Frequency (Hz) | Sound Reduction (dB) | Frequency (Hz) | Sound Reduction (dB) |
| 100 | 20.8 | 800 | 38.1 |
| 125 | 21.6 | 1000 | 40.4 |
| 160 | 22.2 | 1250 | 42.0 |
| 200 | 22.8 | 1600 | 44.6 |
| 250 | 25.8 | 2000 | 47.1 |
| 315 | 28.0 | 2500 | 47.9 |
| 400 | 30.6 | 3150 | 46.4 |
| 500 | 33.2 | 4000 | 49.1 |
| 630 | 34.9 | 5000 | 51.3 |

*Certified laboratory results: Rating according to BS EN 1793 – 2:1998 Category = B3 BS EN 1973 - 1:1998 Category = A3
Laboratory sound reduction 32dB Approximate Superficial Mass 33kg/m²

Highway Noise Barrier

Features

- Available as normal Highway or with the Sound Barrier Extra applied
- Galvanized steel 'I' beam post
- Timber interlocking 'vee' boards
- Can accommodate changes in level or profile
- Optional timber capping, counter rails and post cladding
- Can be supplied in accordance with 'National Highway Sector Scheme 4'

Benefits

- Up to 28dB* or 32dB** noise reduction with the Sound Barrier Extra applied
- Meets stringent Highways agency standards
BS EN 1793 - 1:1998**
BS EN 1793 - 2:1998 BS EN 1794 - 1 and 2
- Able to be installed on uneven or sloping ground
- 25 year guarantee
- Ideal for high wind loading situations
- Easy to install
- Additional absorptive layer available to further increase sound reduction (see Standard Noise barrier plus Sound Barrier Extra**)

Applications

- Residential
- Commercial properties
- Industrial
- Sports venues
- Railways
- Construction sites
- Highways

This latest acoustic barrier system has been designed for Highways and Commercial applications, providing the same level of noise protection as the Standard Barrier.

The Highway 'vee' boards are affixed to galvanized steel 'I' beam posts for additional strength and rigidity, meeting not only the stringent Highways Agency standards BSEN1794-1 and 2, but also prove ideal for application in exposed locations subject to high wind loading.

The system can also be offered with capping and counter rails to further enhance its appearance. Posts can be timber-clad to match.

All acoustic fencing can be additionally treated in accordance with the National Highway Sector Scheme 4 standard, please ask for details.

The Highway System includes galvanized steel 'I' beams with nailing battens to be bolted to the front of the posts. 4.8m long interlocking 'vee' boards are then nailed and timber lock screwed to the front of the railing battens. Cover boards are required on every steel posted job. Capping and counter rails are additional options.

Posts may be base plated or latticed depending on application.

Highway Acoustic Barrier certified laboratory results: Rating according to BS EN 1793 – 2:1998 (Category = B3)

BS EN 1794-1:2003, Annex A,B,C & E BS EN 1793-1:1998 (Category = A3)**

Designed in accordance with BS EN 1794-2:2003 (Detailed compliance statements available) National Highways Sector Scheme (NHSS) 4

* Highway Laboratory sound reduction 28dB* Superficial Mass 28kg/m²

**Highway plus Sound Barrier Extra laboratory sound reduction 32dB* Superficial Mass 33kg/m²

Acoustic Gates

For a totally integrated, acoustic fencing solution we offer matching acoustic timber or galvanized steel framed gates. Configured as singles or pairs, to BS EN 1461 in Standard or Standard Extra, in swing and tracked sliding designs for manual or automated operation.

Swing Gates

Available in a range of sizes from 2m x 1m pedestrian to 5m x 5m wide per leaf for vehicle access. Swing gates can be hung on timber or galvanized or galvanized and powder coated steel posts dependent on size with optional lintels.

Tracked Sliding Gates

Available in a range of sizes, please ask for more details. The largest tracked sliding gate to date that Jacksons have manufactured and installed is 3.5m high x 21m wide leaf - but we can do larger!

When specifying gates of an extraordinary size please consider automation as this is essential for Health and Safety. We can automate any size gate.

Line drawings are available for pedestrian single, metal framed pair of swing and tracked sliding gates.