

## Acoustic Level Pod Cradle System

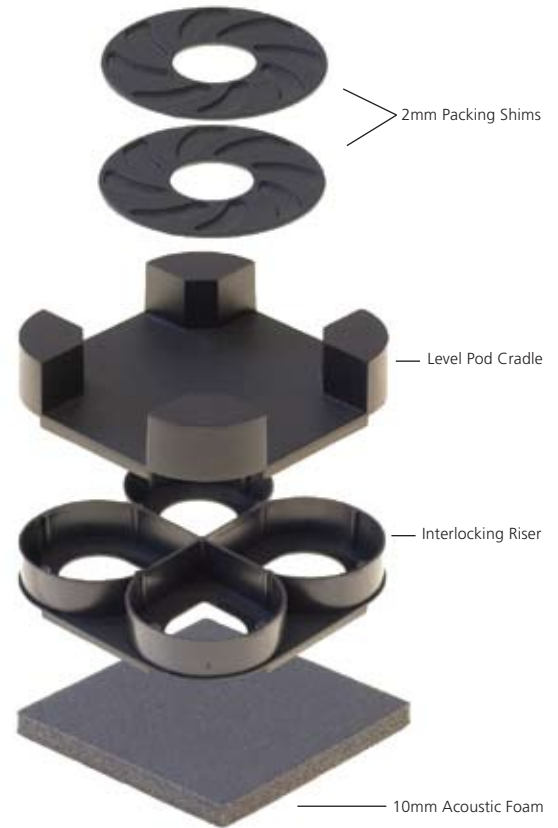
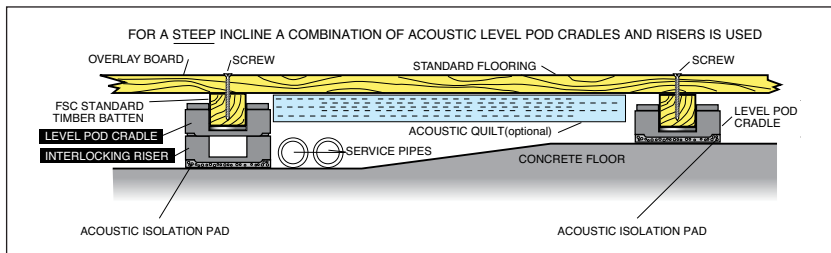
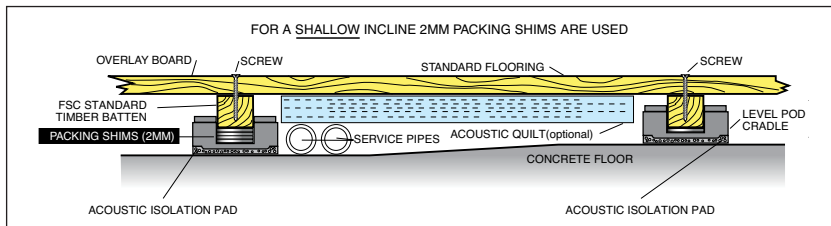
Robust Details FFT-2 Resilient Cradle & Batten System.  
For floor types E-FC-1, E-FC-2, E-FC-7, E-FS-1 & E-FS-2

JOHN C WILKINS  
Acoustic Supplies

### Unique Acoustic Stacking System for uneven concrete subfloors

This resilient cradle and batten system is specially designed for uneven concrete subfloors so common in traditional constructions. The JCW Acoustic Level Pod Cradle has been developed as a quick and easy way to level cambered, stepped and uneven sub-floors. The system involves the use of acoustic foam, standardised moulded components and an acoustic perimeter edging strip, either with or without an acoustic quilt between the battens. The result is a resilient timber floating floor over a solid sub-floor, with accommodation for services and offering much improved resistance to the transmission of impact and airborne sound.

### Typical Layout



### APPLICATIONS

- Offices • Meeting Rooms • Hotels • Conference Centres
- Leisure Centres • Schools • Restaurants • Showrooms

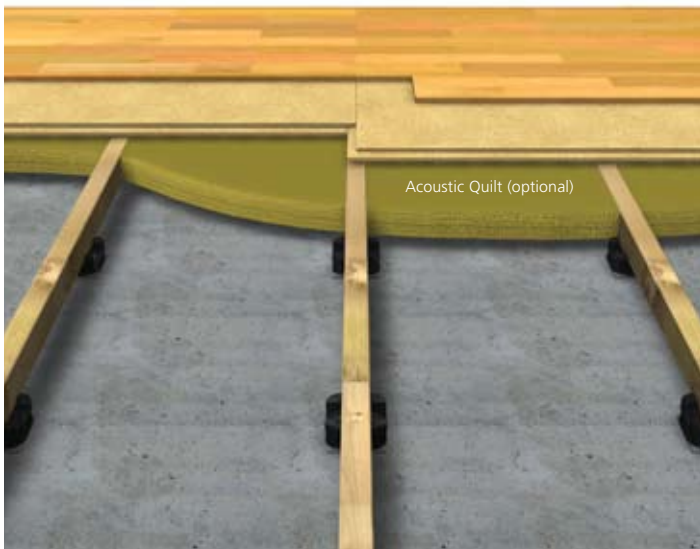


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### System Detail and Benefits

- Unique interlocking cradle and riser combinations allow vast range of void depths to be achieved
- 2mm Packing Shims permit ultimate flexibility in final height adjustment
- Combination of cradles, risers and timber supports provide a variety of raised floor designs
- Easily adjusted to accommodate varying services requirements
- Complies with the requirements of Approved Document E (England and Wales) and Section 5 (Scotland)
- Robust Details Part E FFT-2 resilient cradle and batten system
- Test data for Robust Detail Part E compliance is BBA verified
- Simple, easy to understand, easy to use system
- Cost effective and sustainable using re-cycled materials and FSC certified standard timber building products



### How the JCW Acoustic Level Pod Cradle System works

The system consists of:

- A pre-cut square of Acoustic Foam Pad, 10mm thick, which is the base for the cradle system
- This Acoustic Foam Pad is the only contact point the system has with the sub-floor, acoustically isolating the Level Pod Cradle System from the surrounding construction and providing resistance to the transmission of impact sound
- The Acoustic Level Pod Cradle, precision moulded in recycled polypropylene, fits neatly over the Acoustic Foam Pad
- The Cradle is used to support timber battens up to 48mm wide which in turn support the flooring deck
- The acoustic integrity of the system reduces the transmission of impact and airborne sound through concrete floors by acoustically isolating the bearing surface from the structural floor
- The Level Pod Cradle accommodates 2mm Packing Shims for total flexibility in final height adjustment
- For steeper inclines and larger voids, an interlocking Level Pod Riser is used in combination with the Level Pod Cradle to give additional height required
- The resistance to airborne sound depends partly on the mass of the concrete sub-floor and floating layer and partly on other sound absorbent materials used in the overall construction

### Design Considerations

The JCW Acoustic Level Pod Cradle System should be installed at the spacings shown in the table below. These figures are based on domestic loadings. In kitchens and bathrooms where high loads are expected (beneath kitchen units, baths and toilet bowls), battens should be placed at 300mm with cradles at 400mm centres.

Cross battens should be used to provide additional support under specific appliances.

At perimeters a continuous run of battens should be installed 50mm from the wall, with cradles spaced at 400mm centres. At door openings the edges of the flooring deck should be supported with an additional batten.

**Any party wall partitions should be built off the structural concrete slab, not the flooring deck.**



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### Recommended Cradle Spacings

Flooring Type	Batten Dimensions	Cradle Centres	Batten Centres
<b>18mm Chipboard</b>	<b>45 x 45mm</b>	<b>600mm</b>	<b>400mm</b>
<b>22mm Chipboard</b>	<b>45 x 45mm</b>	<b>600mm</b>	<b>600mm max</b>
<b>18mm Chipboard</b>	<b>21 x 45mm</b>	<b>300mm</b>	<b>400mm</b>
<b>22mm Chipboard</b>	<b>21 x 45mm</b>	<b>300mm</b>	<b>600mm max</b>

### Technical Specifications

- The **Acoustic Foam Pad**, 10mm thick, is manufactured from closed cell foam
- The **Level Pod Cradle** is manufactured from recyclable plastics. They provide height increments from 11mm, excluding timber batten, when used on their own. The cradle design also allows the system to accept four batten ends, a useful four way support method
- Adding the interlocking **Riser** provides 20mm height increments and these can be used in multiples to enable major level differences to be accommodated
- The **Packing Shims**, which are 2mm thick and fit snugly within the cradle, permit the ultimate flexibility in height adjustment
- The system is flexible enough to be able to accept batten heights from 21mm to 100mm (please ask for details if extra heights are required)
- It is recommended that a 25mm thick mineral wool quilt (10- 36kg/m<sup>3</sup> density) is placed between the cradles and battens to further enhance acoustic performance
- Tests have shown that when the quilt is omitted, the system is still capable of satisfying the minimum requirements of the Building Regulations
- Where high thermal insulation is a priority the self locking Level Pod Cradle can be stacked onto several Risers to provide a significant void for the application of mineral wool insulation
- Final floor finishes can be anything required including low cost 18mm thick T&G chipboard, plywood or hardwood
- To ensure the acoustic integrity and performance of the system installation, a 5mm thick closed cell polyethylene **JCW Perimeter Edging Strip** should be fitted between the wall and the finished floor surface
- Any skirting boards should be fixed isolated from the floor by the **JCW Perimeter Edging Strip**

### Summary

- Simplicity itself
- Only a maximum of four different components needed for any application
- Only one size of packer needed
- Multiple height possibilities achievable
- No time wasted calculating quantities needed on site
- Absolutely no on-site waste
- Made from environmentally sensitive, recyclable materials
- Can alternatively be used as a system to accommodate services or as a raised floor system to provide the required amount of underfloor space

### About John C Wilkins

John C Wilkins Acoustic Supplies is renowned for the high quality of its acoustic flooring products and the skills and dedication of its technical support and product development teams. As part of a group of companies with wide experience of the needs of the construction sector, we understand the need for practical products that perform on site, while remaining affordable and available.

We can provide all the information and advice you need to ensure all technical and legal requirements are met satisfactorily.



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## Acoustic Level Pod Cradle System

### Building Regulations

Compliance with Approved Document E (England & Wales) can be shown by Pre-Completion Testing on site (see Acoustic Requirements on page 52.5)  
Compliance with Robust Details Part E can be shown by BBA verified FFT-2 Impact Sound Improvement test data  
Compliance with Section 5 (Scotland) can be shown by Performance Testing on site (see Acoustic Requirements on page 52.5)

### Impact Sound Insulation

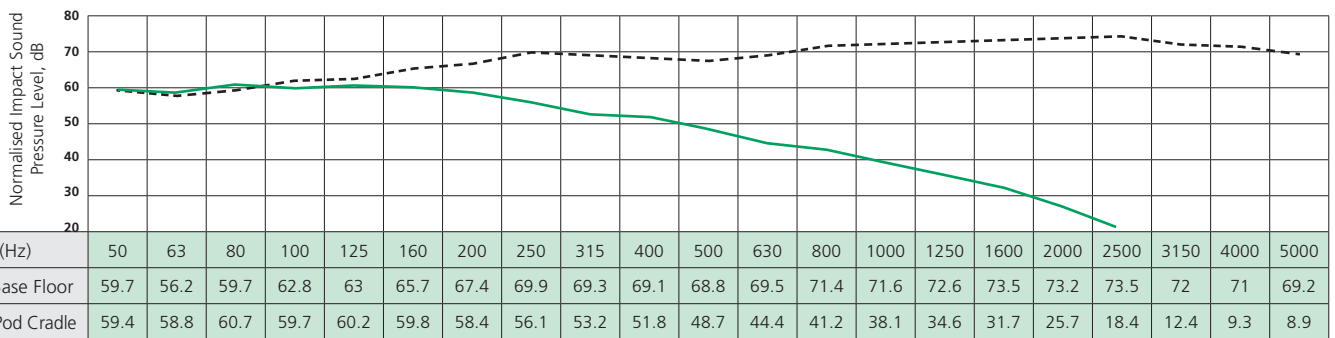
The table below represents a comparison of the impact sound insulation offered by the floating floor system as tested on a concrete floor. The tests were carried out on a 150mm deep hollowcore precast concrete plank with a 20mm sand and cement screed total mass of 335kg/m<sup>2</sup>. The test sample consisted of a 18mm tongue and groove chipboard with 45 x 45mm battens on the JCW Level Pod Cradles with 50mm mineral wool insulation between battens. Tests were carried out by Sound Research Laboratories, UKAS accredited test laboratory No. 0444 on the 24th February 2005, Test Report No. C/04/5L/3162/1a.

### Acoustic Performance dB

dB

Concrete Base Floor (Ln,w)	<b>79</b>
JCW Level Pod Cradle (Ln,w)	<b>51</b>
Improvement (Robust Details Part E minimum requirement: +17)	<b>+28</b>

Concrete Base Floor	-----	JCW Level Pod Cradle	-----
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### Airborne Sound Insulation

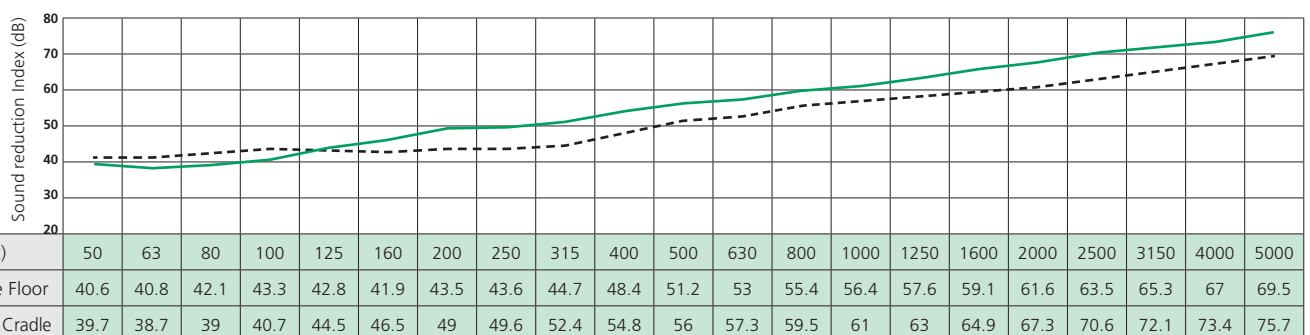
The table below represents a comparison of the airborne sound insulation offered by the floating floor system as tested on a concrete floor. The tests were carried out on a 150mm deep hollowcore precast concrete plank with a 20mm sand and cement screed total mass of 335kg/m<sup>2</sup>. The test sample consisted of a 18mm tongue and groove chipboard with 45 x 45mm battens on JCW Level Pod Cradles with 50mm mineral wool insulation between battens. Tests were carried out by Sound Research Laboratories, UKAS accredited test laboratory No. 0444 on the 24th February 2005, Test Report No. C/04/5L/3162/1a.

### Acoustic Performance dB

dB

Concrete Base Floor (Rw + Ctr)	<b>51</b>
JCW Level Pod Cradle (Rw + Ctr)	<b>55</b>
Improvement (Airborne test data not required by Robust Details Part E)	<b>+4</b>

Concrete Base Floor	-----	JCW Level Pod Cradle	-----
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### Unique Levelling System for both external and internal subfloors

The JCW Acoustic Level Pod Cradle has been developed as a totally flexible way to quickly and easily level cambered, stepped or uneven subfloors and will easily accommodate both shallow and steep inclines in base floors.

Whilst the system is primarily used internally as a Robust Details acoustic solution for uneven concrete subfloors, its unique stacking technology and rot proof construction make the system ideally suitable for creating a level base to carry every type of external decking application, including balconies and bridge decks.

The system has been successfully installed by builders and developers across a range of external commercial, domestic and leisure applications where it provides a level base which is both robust and durable for the application of treated timber support battens and all types of specialist and proprietary decking overlay boards.

The JCW Level Pod Cradle System has the strength to easily manage all widths, thicknesses and lengths of structural timber deck boards.

### Summary

- Simplicity itself, quick and easy to install
- Multiple height possibilities achievable
- Weather proof, rot proof, damp proof
- Strong, robust, flexible
- No on site waste
- Made from environmentally sensitive, recyclable materials
- Can be used as a system to accommodate services or as a raised floor system to provide underfloor space

### Case Histories

**Telford Homes:** Tredegar Road, Bow, London

**Telford Homes:** Papermill Place, Walthamstow, London

### About John C Wilkins Acoustic Supplies

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We can provide all the information and advice you need to ensure all technical and legal requirements are satisfied.

**For further details, call John C Wilkins Acoustic Supplies on 01204 548400**



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### JOHN C WILKINS ACOUSTIC SUPPLIES

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