TECHNICAL DATA SHEET

MCW CRADLE AND BATTEN SYSTEM

ADJUSTABLE ACOUSTIC RAISED FLOOR SUPPORT AND LEVELLING SYSTEM

The MCW Cradle and Batten System is an adjustable timber-batten support system developed to level uneven subfloors while improving both impact and airborne sound insulation. It creates a dry raised-floor platform suitable for new-build and refurbishment projects and can accommodate services, insulation and underfloor heating within the floor void.

Key benefits

Low build-up	Acoustic control	Adjustable support	Coordinated floor void
System depths from approximately 50mm.	Resilient support helps reduce impact and airborne sound transfer.	Packers and elevating blocks allow accurate floor levelling.	Space for building services, insulation and compatible UFH systems.

System components

Component	Function
Acoustic cradle	Injection-moulded support unit that locates and stabilises the timber batten.
Resilient pad	Recycled rubber/foam isolation layer positioned beneath each cradle.
Levelling components	Packers and elevating blocks used to establish the required finished floor level.
Timber batten	Supports the selected structural floor deck and distributes loading between cradles.
Perimeter strip	L-shaped resilient strip used around walls and rigid upstands to reduce flanking transmission.
Floor deck	m chipboard/OSB, or an approved high-density cementitious dry floor panel.

APPLICATION Designed to support compliance with Approved Document E when incorporated into an appropriately specified separating-floor construction and installed with continuous perimeter isolation.

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DESIGN AND LOADING

SUPPORT CENTRES, FLOOR DEPTH AND PROJECT REQUIREMENTS

Support centres must be selected to suit the floor-deck thickness, imposed loading and point-load requirements. The standard arrangements below are based on a uniformly distributed load of 1.5kN/m² and a point load of 1.4kN.

Standard support centres

Floor-deck thickness	Batten centres	Cradle centres	Basis of design
18mm chipboard/OSB	400mm	600mm	1.5kN/m² UDL / 1.4kN point load
22mm chipboard/OSB	600mm	600mm	1.5kN/m² UDL / 1.4kN point load

HIGHER LOADS For exceptional loading, batten centres may be reduced to 300mm. With 22mm chipboard this can increase the quoted uniformly distributed load to 4.5kN/m². A maximum quoted load of 7.5kN may be achievable with a suitably selected thicker chipboard or specialist cementitious deck, subject to technical assessment.

Specification information

Design item	Requirement
Minimum build-up	From approximately 50mm, subject to batten depth, cradle adjustment and deck selection.
Batten lengths	Typically supplied in 1,800mm or 2,400mm lengths to support stability and installation tolerances.
Substrate moisture	Concrete slabs and screeds should be at or below 75% relative humidity before installation.
Service coordination	The raised void can accommodate compatible mechanical and electrical services and insulation.
Underfloor heating	Compatible with project-designed UFH. A suitable high-density dry floor panel, such as ScreedPro™, may be specified to promote heat transfer.
Perimeter isolation	Maintain the L-shaped flanking strip continuously around walls, columns and other rigid upstands.

Robust Detail applications

The system is intended for use with FFT2 resilient cradle-and-batten floor treatments associated with Robust Detail constructions E-FC-1, E-FS-1, E-FC-2 and E-FC-7. The complete floor must follow the relevant Robust Detail or project specification in full.

STRUCTURAL REVIEW The quoted loads are design guidance from the reference datasheet and are not a universal capacity declaration. Obtain technical approval for high loads, alternative deck materials, non-standard support centres or concentrated loads.

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TYPICAL ACOUSTIC PERFORMANCE

REPORTED RESULTS FOR REPRESENTATIVE SEPARATING-FLOOR CONSTRUCTIONS

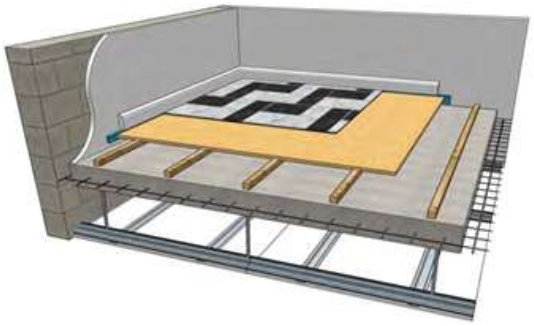
The following values relate to complete reference floor and ceiling constructions. They demonstrate typical system performance and must be read together with the corresponding structural-floor and ceiling details.

Reference floor	Structural element	DnT,w + Ctr	L'nT,w	ΔLw
Reinforced in-situ concrete	200mm slab	53dB	46dB	24dB
Profiled metal deck	130mm concrete on profiled deck	53dB	50dB	24dB
Precast concrete plank	150mm precast concrete plank	51dB	50dB	24dB
Beam and block	Minimum 100mm floor	51dB	53dB	24dB

Reference floor constructions

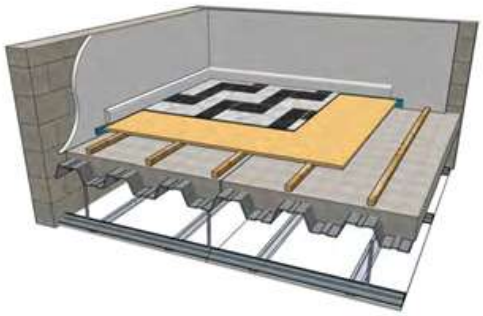
Reinforced in-situ concrete

200mm reinforced in-situ concrete slab.



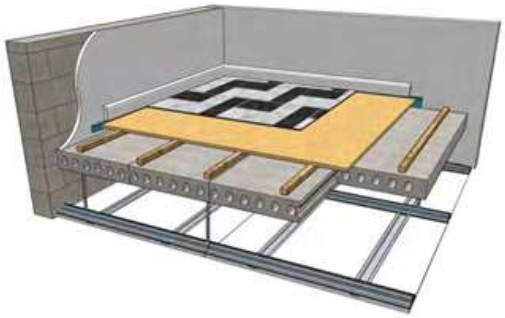
Profiled metal deck

130mm concrete on profiled metal deck.



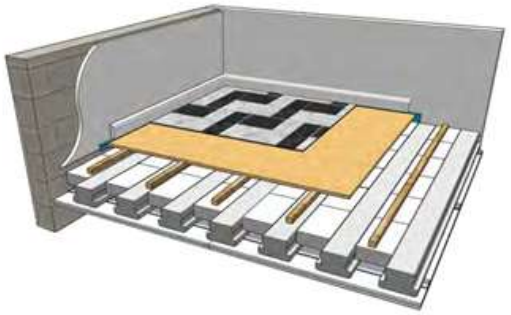
Precast concrete plank

150mm precast concrete plank floor.



Beam and block

Beam-and-block floor, minimum 100mm thick.



Common reference build-up

Laminate tiles over 18mm OSB/chipboard; MCW Cradle and Batten 50; continuous L-shaped flanking strip; structural floor as listed above; suspended MF ceiling with a minimum 100mm void; and one layer of 9.5mm acoustic plasterboard.

ACOUSTIC EVIDENCE **These are reported typical values for the stated complete constructions, not standalone cradle performance. Changes to the deck, base floor, ceiling, services, junctions or flanking details may alter the result. Project-specific acoustic assessment may be required.**

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