

Isolated Floating Floor System

The system comprises acoustic battens placed on the floor with low density mineral fibre installed between over which are laid covering panels, usually of timber, forming a structural floor complete with edge isolation.

Description

The principal component part of the system comprises a 3000mm long x 47mm wide isolated batten consisting of a galvanised steel U profile, into which CDM bearings nominally 40mm x 40mm are integrated of varying height and duty depending on load factors and isolation requirements. These may be selected in accordance with the following table.

Batten Type	Batten Height	Bearing Height	Max. Load	Deflection for Max. Load	Resonant Frequency for Max. Load
CDM-01030	31mm	30mm	150kg/m ²	-5mm	11Hz
CDM-01040	41mm	40mm	150kg/m ²	-8mm	8.5Hz
CDM-01050	51mm	50mm	150kg/m ²	-11m	8Hz

The battens are placed on 600mm centres with low density mineral fibre installed between. Panels usually of timber are fixed to these to form a structural floor comprising two staggered layers with an isolating membrane between, with further isolation fitted around the perimeter to reduce the incidence of structure borne sound transmission via the walls. Timber skirting can subsequently be fitted provided it does not contact the isolated floor structure and covering such as carpet or vinyl may be readily laid over the top of the timber floor panels to provide a conventionally finished floor.

Recommendations

- It is very important that no rigid contacts are made between the floating floor and the structural floor. Special interest should therefore be given to the installation of the isolation material and skirting around the perimeter of the floor.
- The surface where the bearings will be installed should be horizontal and clean, a tolerance of 1/1000 is acceptable (e.g. 2mm on 2m linear). Exceptional local roughness can be accepted as long as it does not create any possibility of bridging between the isolated and non-isolated floors.
- We recommend completely filling the air void between the bearings with a light density - <20kg/m³ - mineral wool with an open cell structure.

Typical Applications

Music practice rooms, recording studios, control rooms and audiology suites.

