



**ACOUSTIC SOLUTIONS  
IN TIMBER CONSTRUCTION**



## Welcome to CDM

We specialise in noise and vibration isolation solutions for buildings and industrial equipment.

Whatever type of building you have and whatever type of noise and vibration problem you have we can design a solution for you.

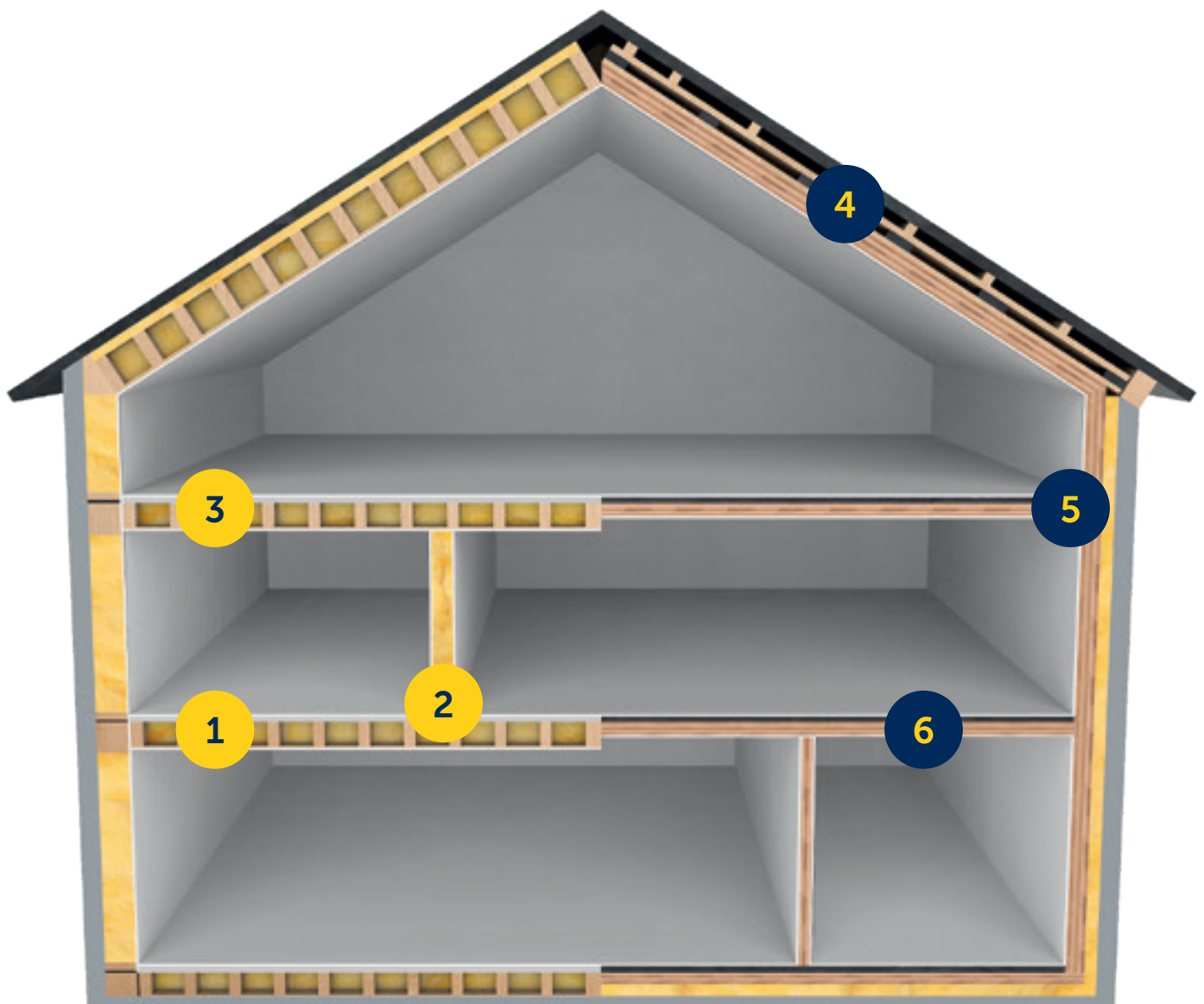
CDM's reputation is built on our passion for solving noise and vibration problems, our professional approach, engineering capabilities, technical excellence and most of all on our people – so if you have a problem related to noise and vibration then come and talk to us – we think you'll like what you hear.

**CDM making  
your world  
a quieter place**

# ACOUSTIC SOLUTIONS IN TIMBER CONSTRUCTION

Historically wooden constructions have offered poor acoustic isolation levels; particularly at lower frequencies where light weight walls and ceilings transmit low frequency noise very efficiently and make it impossible to comply with local building regulations.

CDM have recently participated in several projects to research and develop sustainable, cost effective and environmentally responsible isolation solutions for wooden framed and cross laminated timber structures – the results of which are very impressive.

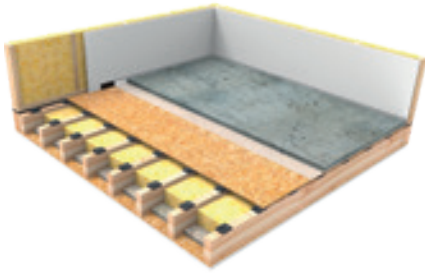


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## WOOD FRAME STRUCTURES

Buildings which comprise of walls and joisted floors supported by a timber framework.

1



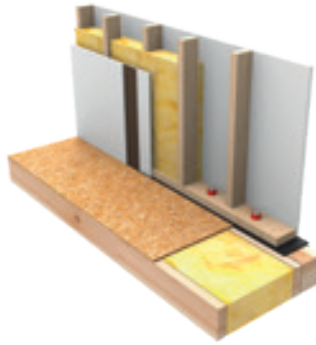
### CDM-BUNKERFLOOR FLOOR ISOLATION SYSTEM

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Improve the airborne and impact noise insulation of joisted floors by decoupling the floor and joist using CDM-BUNKERFLOOR.

- Improve acoustic performance without significant increase in floor thickness
- Cost effective and easy to install

2



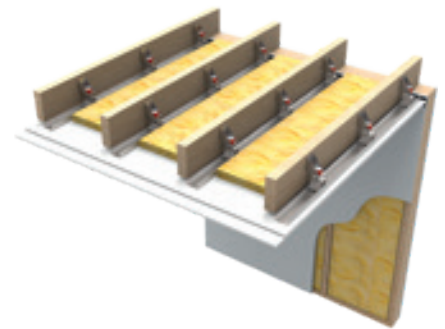
### CDM-WALL-FIX FLANKING ISOLATION SYSTEM

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Limit flanking transmission of structural noise through timber constructions by acoustically decoupling the bottom, top and sides using CDM-WALL-FIX. Further improvement can be made by alternating vertical wall studs or, if possible, installing 2 completely independent wall structures.

- Limit transmission of noise energy through wooden structures
- Reduce flanking noise transmission

3



### CDM-PSJ CEILING ISOLATION SYSTEM

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Joist floors can be improved from the underside by installing a suspended ceiling using resilient CDM-PSJ hangers which are side mounted onto the joists, plasterboard is then fixed to the underside of the hanger so that there is a minimum loss of ceiling height.

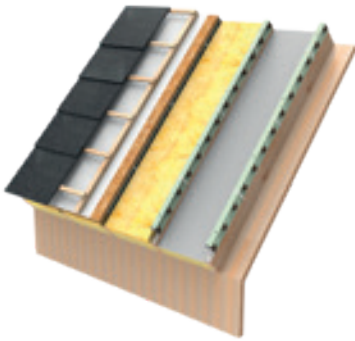
- Significant improvement in sound insulation
- Maximized room height

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## CLT-BASED STRUCTURES

Buildings where the walls and floors are made from structural and environmentally sustainable cross laminated timber panels.

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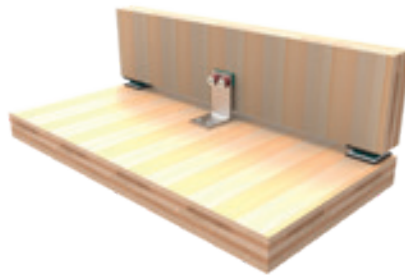
**CDM-ROOF-T**  
ROOF ISOLATION SYSTEM

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Classic lightweight timber or cross laminated timber roof structures provide poor acoustic isolation and sound insulation, particularly at low frequency. Acoustic performance can be significantly improved with the addition of CDM-ROOF-T battens into which dense plasterboard or fibercement boards can be fixed to add the much needed mass.

- Significant acoustic improvement at low frequencies
- Cost effective and easy to install
- Suitable for both internal (e.g. dance hall) and external noise (e.g. traffic, airplane, street noise)

5



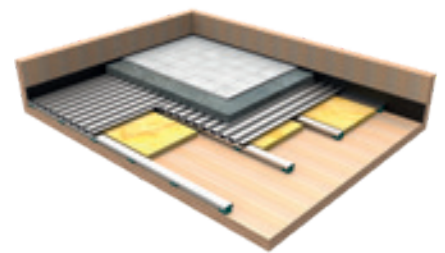
**CDM-SEB-CLT**  
FLANKING ISOLATION SYSTEM

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Structures where both walls and floors are made of cross-laminated-timber transmit structure-borne noise through their connections because of insufficient internal damping. Resilient strips can significantly reduce the noise transmission in wooden skeleton structures but the connections in CLT structures are much more critical (as indicated by test data produced by the Belgian Building Research Institute). The tests indicate that contact between surface should be limited as much as possible by installing resilient fixings, such as the CDM-SEB-CLT system, which is designed to guarantee horizontal stability and can be made to accommodate any construction or load.

- Efficiently limits the transmission of noise energy through the CLT connections at low-frequencies
- Guaranteed horizontal stability

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**CDM-QDECK**  
FLOOR ISOLATION SYSTEM

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CDM-QDECK is a rigid screeded floating floor which, when installed onto a CLT-based structural floor will provide a high level of acoustic performance - even at low-frequency. The screed can be a minimum of 50mm, steel reinforcement is not required and the void depth can be varied to accommodate underfloor services.

- High performance from minimal floor thickness and mass
- No reinforcement to minimise system weight
- Variable void height to accommodate underfloor services

# Contact

We have qualified engineers in noise and vibration based at different locations around the world – they are only a phone call away so why not give them a call if you need help with your project. For general enquiries please contact our head office on [general@cdm.eu](mailto:general@cdm.eu).

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## Delta-L B.V. | CDM Nederland

Delta-L is specialist op het gebied van geluidsisolatie en trillingsisolatie en ontwerpt, levert en monteert diverse systemen voor akoestische ontkoppelingen in de bouw en industrie.

Delta-L vertegenwoordigt CDM op de Nederlandse markt. CDM is opgericht in 1951 en is marktleider op het gebied van akoestische oplegsystemen voor de bouw en industrie en is actief in tientallen landen (30+ vestigingen wereldwijd).

Door onze expertise, jarenlange ervaring en grote database aan meetresultaten van zowel interne en externe laboratorium metingen als in situ metingen hebben we door de jaren heen een uitgebreid assortiment aan akoestische materialen ontwikkeld, welke we op een slimme manier verwerken in diverse akoestische systemen.

Tevens zijn wij hierdoor in staat u adequaat van dienst te zijn bij elke stap in het proces: analyse van het geluid of trilling probleem, het aanleveren van een akoestisch ontwerp, optimalisatie van het ontwerp, productie, levering en montage.

Er wordt continu gewerkt aan innovatie en optimalisatie van de akoestische systemen om uw wensen en eisen om te zetten in een deskundig advies op maat.

## Contactinfo

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