



Making your world a quieter place

GYM FLOOR ISOLATION THE NEXT GENERATION

- Introduction
- CDM-GYM Solutions
- Case Studies

INTRODUCTION

- CDM is a Belgian Company established in 1951 with over 60 years of experience in the engineering, design, manufacture, and supply of Noise and Vibration Isolation Solutions.
- CDM were the pioneers in Building Base Isolation after executing the Royal Conservatoire of Antwerp in the early 1960's.
- CDM now operates through different subsidiaries worldwide
- The key strength of CDM is that if our standard solution cannot serve your problem, we will engineer one!

OVERVIEW OF GYM ISOLATION

- Locating gyms, fitness studios, or other types of sporting facilities within a residential or commercial building poses a great challenge for the design team.
- Activities within the gym generate high levels of both impact and airborne noise, particularly at low frequencies. If left untreated, these vibrations cause unwanted noise in adjacent spaces. Therefore, selecting the right floor is one of the most important aspects of designing a fitness facility.
- CDM high performance resilient floating floors can be designed to provide any system height and meet the highest acoustic performance requirements.

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DRY FLOOR CONSTRUCTION

CDM-GYM SP



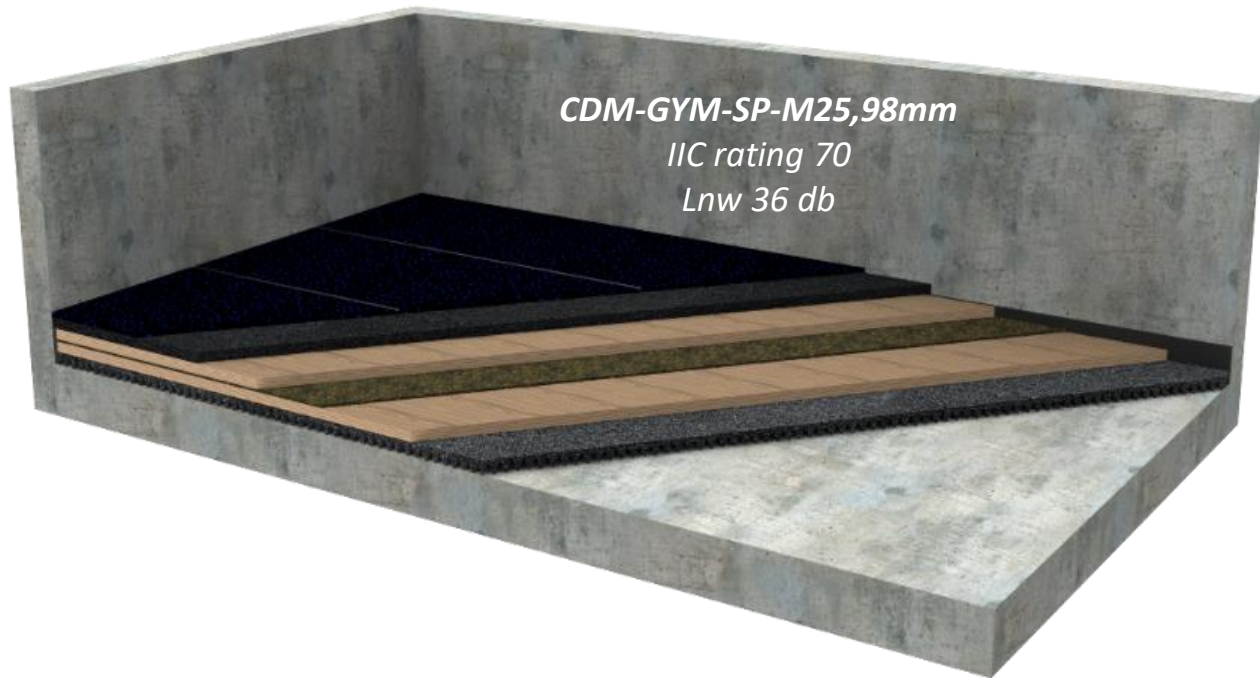
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CDM-GYM-SP-M25,98mm

IIC rating 70

Lnw 36 db

30mm GYM-ELAST-30
2x PW19 + DAMP5
25/7mm MTX mat



CDM-GYM HP



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CDM-GYM-HP-M30, 103mm

IIC rating 74

Lnw 32 db

<i>30mm GYM-ELAST-30</i>
<i>2xPW19 + DAMP5</i>
<i>CDM-GYMLAT-M30</i>
<i>16mm Acoustic Insulation</i>

CDM-GYM XP



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CDM-GYM-XP-L50,147mm

IIC rating 79

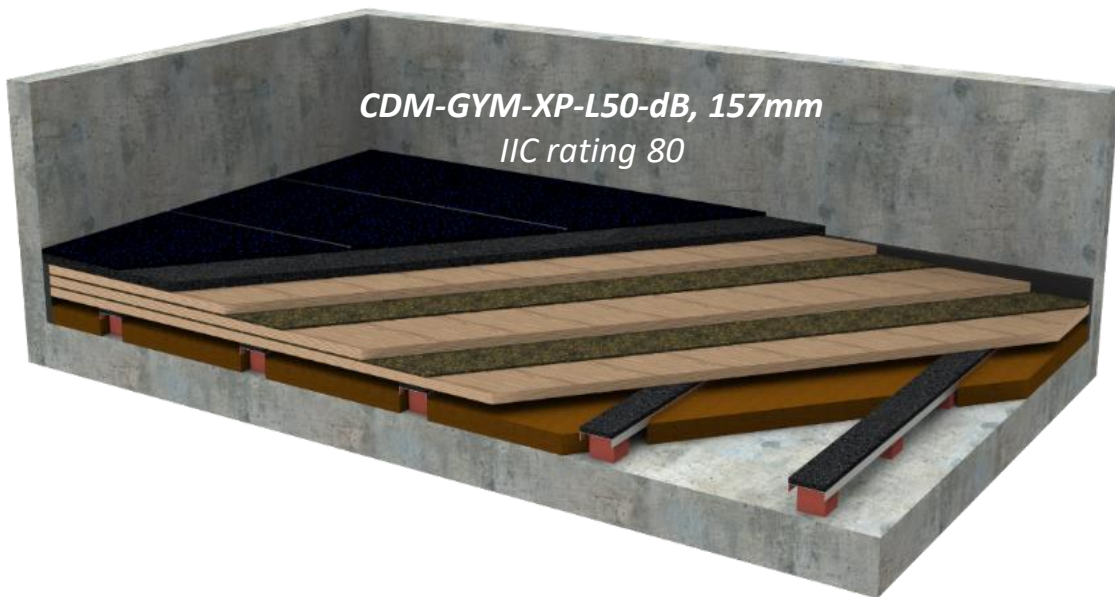
Lnw 24db

30mm GYM-ELAST-30
3x PW 19 + 2x DAMP5
CDM-GYMLAT-L50
38mm Acoustic Insulation

CDM-GYM XP



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CDM-GYM-XP-L50-dB, 157mm
IIC rating 80

30mm CDM-GYM-ELAST-30
3x PW19 + 2x DAMP5
dBOOSTERLAT-L60
38mm Acoustic Insulation

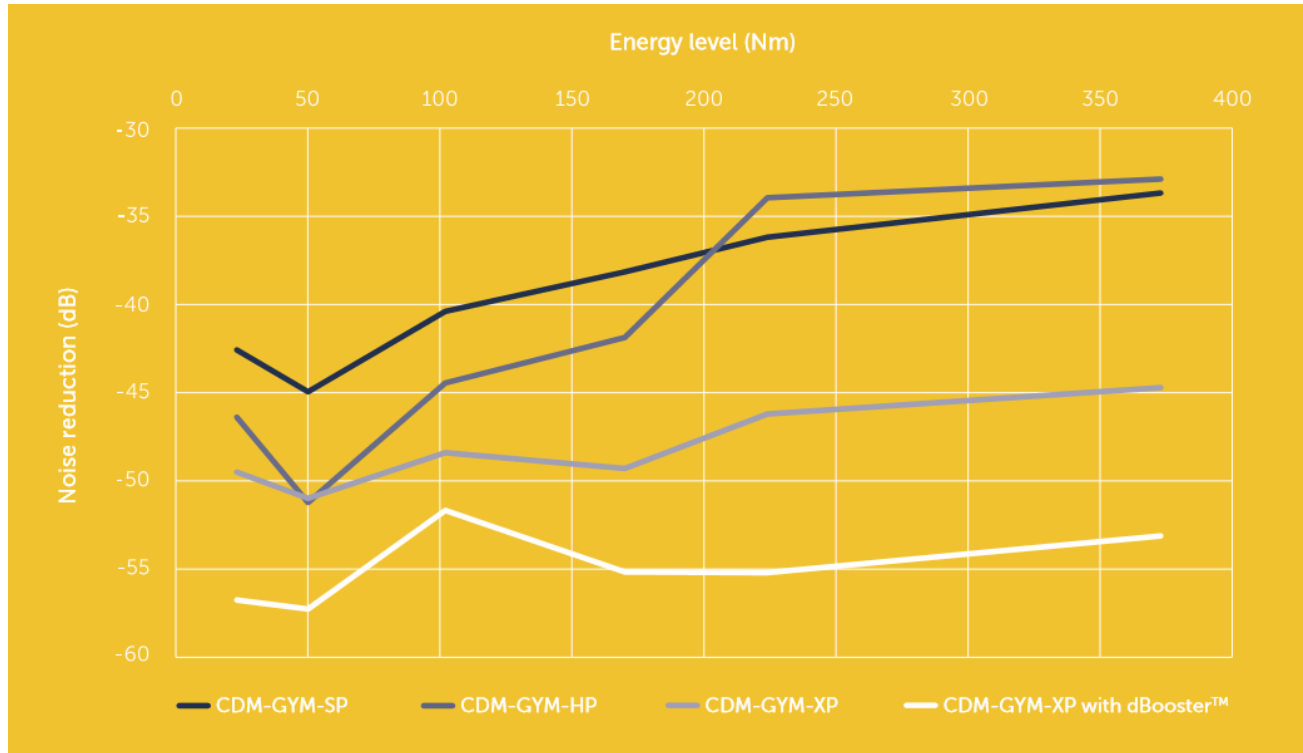
ADVANTAGES OF CDM-GYM

- Flexible in Engineering – Can be redesigned to accommodate any system depth
- Lightweight system options available
- Several lab and on site tests conducted with proven high performance results, particularly at low frequencies.
- Quick and easy installation
- Compatible with different type of gym floor finishes
- Can be dismantled and reassembled in a different venue

TEST RESULTS



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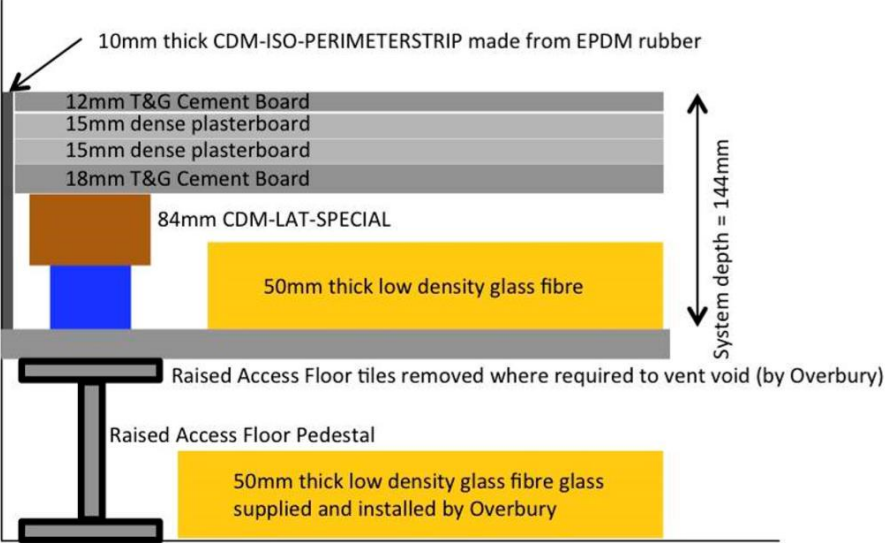
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EQUINOX GYM, KENSINGTON, UK

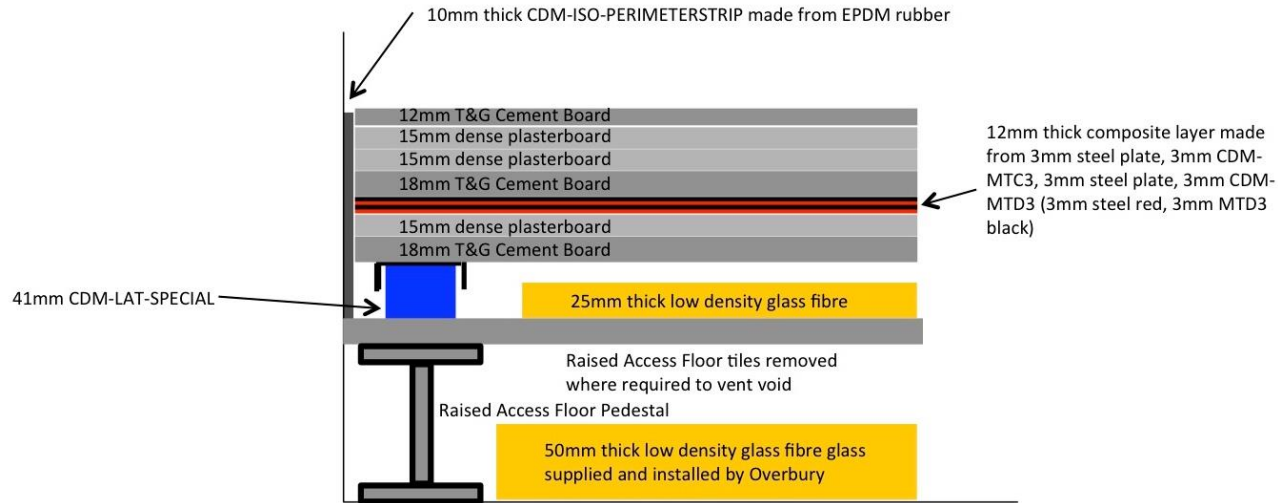
- Equinox is a large USA gymnasium operator and their first venture in London is in High Street Kensington. The site they chose is on the 5th floor, directly above Sony Music where Simon Cowell works, and directly beneath Kensington Roof Gardens, which is a popular and very trendy night spot.
- Ramboll Acoustics specified that a floating floor was required to reduce impact noise levels from the gym to $<55\text{dB L'nT,w}$. However it soon became clear that the floating floor would have to ensure that no significant disturbance was caused to Sony Music directly beneath.
- The final design consisted of a CDM-LAT isolation rail supporting a composite dry floor construction. The floor under Group Fitness, where all of the gym classes are held, also had layers of steel plate to optimize the low frequency performance.
- The on-site performance at the end of the job was measured as 35dB L'nT,w although this was dominated by background noise as the performance of the floating floor was so good. The improvement from the base concrete floor was 42dB .



FOR STANDARD AREA – 1000 SQM



FOR HEAVY LIFT AREA – 250 SQM

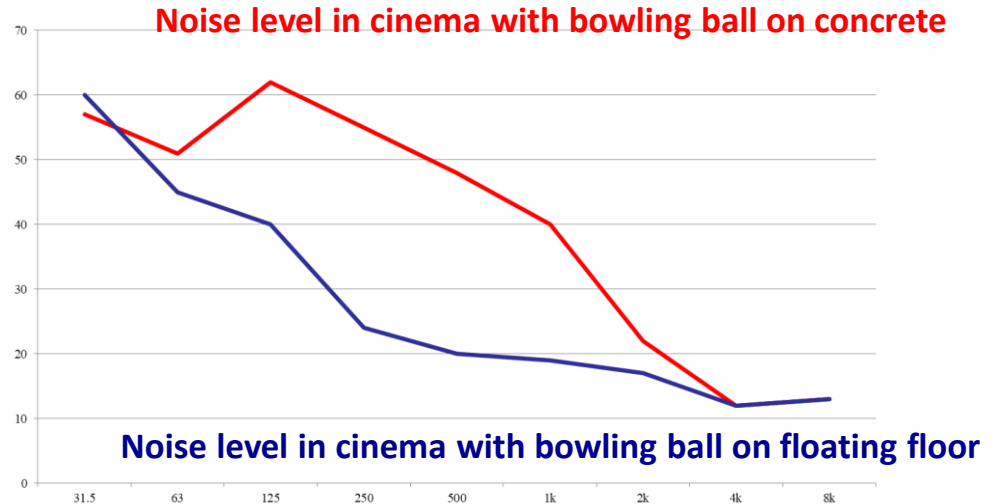


CRUNCH FITNESS 81ST , NEW YORK, USA

- This boot camp style fitness studio on the main floor of a residential tower in New York City is the 8th Crunch Fitness where a CDM-GYM floating floor system has been installed.
- The main concern in this project is the impact noise from boot camp activities such as dropped weights, battle ropes, slam balls and flipped tires radiating through the structure to residential units above.
- To avoid this reradiation, a CDM-GYM solution was installed. In this specific project, the CDM-GYM-XP-dB was selected as the best solution, which was modified to accommodate the limited buildup height available.

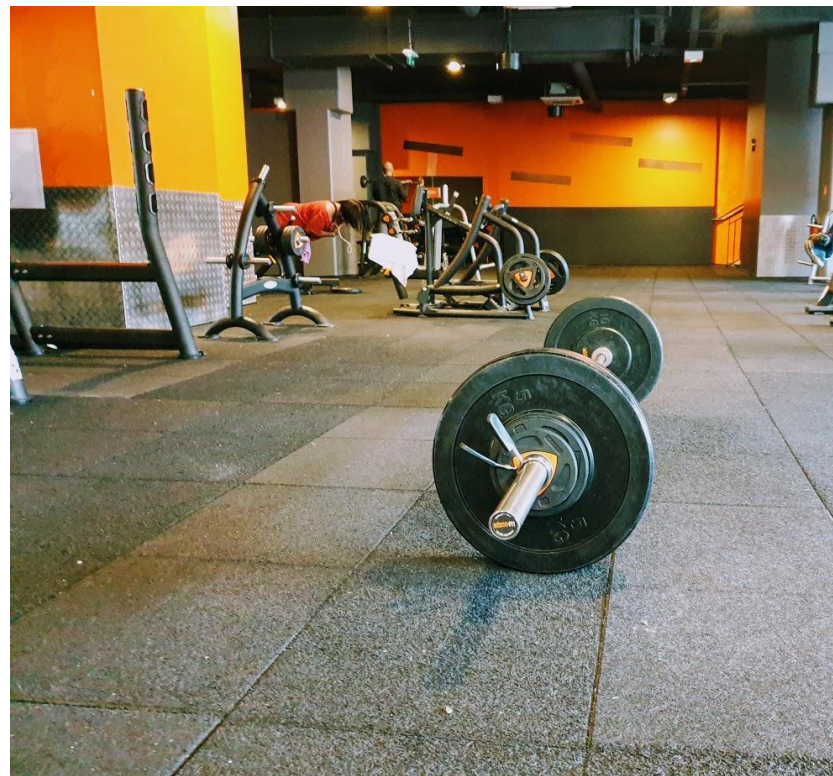


CHARLESTON BOWLING, DUBLIN

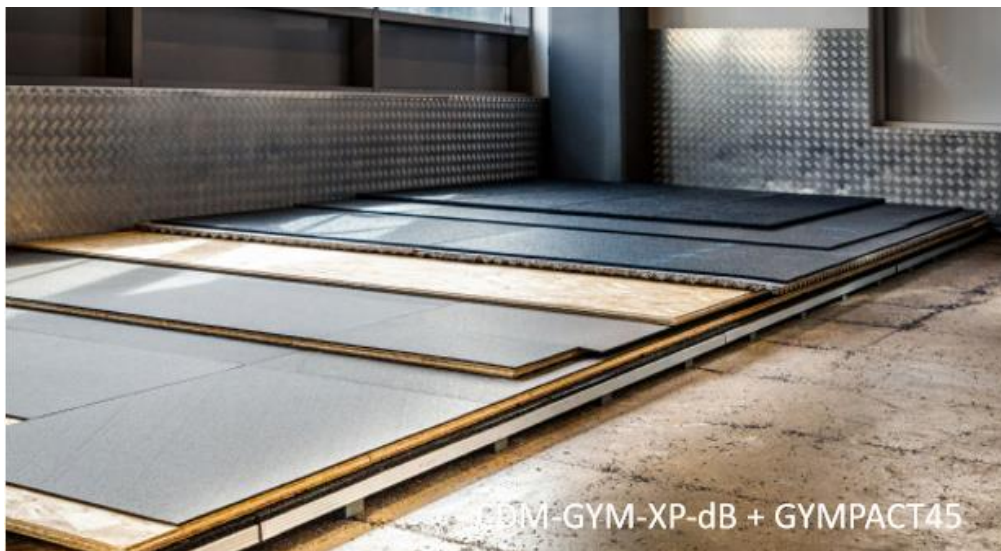


BASIC FIT - AUBERVILLIERS, FR

- The Basic-Fit Aubervilliers club is located on the ground floor of a 6-storey residential building.
- The client hired an first acoustic consultant that proposed a solution that was unsuccessful. A second consultant was then hired, who submitted several proposals from different suppliers of acoustic flooring, including CDM. After a test campaign, it turns out that the results obtained on the CDM test platform were the most conclusive.
- We therefore proposed a two-part treatment, first on the "free weights and functional weight" zone with CDM-XPGYMPACT 45 dBooster and CDM-GYM-HP on the "force" zone.
- After this experience and on-situ testing of CDM systems in comparison to others, CDM is now a common solution provider for BASIC-FIT in current and future branches.



BASIC FIT – AUBERVILLIERS, FR



1 BEAT – ONE CENTRAL, DUBAI

- 1BEAT is a boot camp gym located on the ground floor of the One Central Building in Dubai Financial District.
- Although the type of weights used are relatively light, there was a concern for the transfer of structure-borne noise to the above office spaces.
- Due to a restriction in buildup and budget, the system adopted was the CDM-GYM 70. The solution was finished with a 15 mm rubber flooring.
- Comparing the L_{Amax} noise level magnitudes from the impact test in the receiver location in the office space directly above, there was an improvement of approximately 22 dB. This improvement was sufficient given the type of gym application.



1 BEAT – ONE CENTRAL, DUBAI



OUR CLIENTS

BASIC-FIT



jetts
24 hour fitness

**THIRD
SPACE**



OUR CORPORATE CLIENTS

The Google logo, featuring the word "Google" in its characteristic multi-colored font (blue, red, yellow, green, red).The Citi logo, featuring the word "citi" in a dark blue, lowercase, sans-serif font, with a red arc above the letters "i" and "t".

THANK YOU!