

# CDM-ISO-CHR-BOX

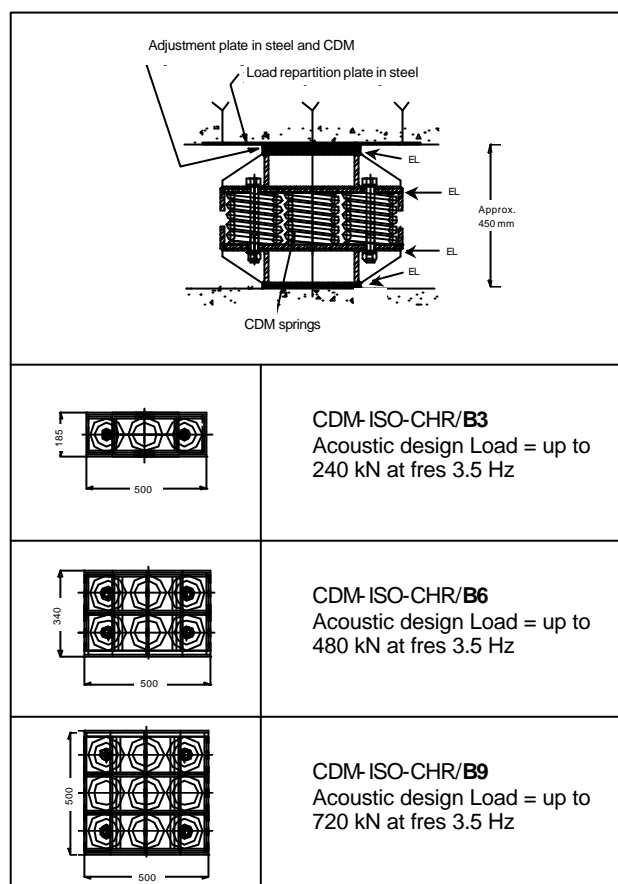


## Building Base Isolation Pre-Compressed Spring Boxes

**CDM-ISO-CHR** Pre-Compressed Spring Boxes are used to isolate buildings where the required natural frequency required is 2.5Hz to 4Hz. They consist of springs inside reinforced steel boxes which are pre-compressed to a specified load.

The advantages of pre-compressed springs over simple springs are as follows:

- The springs are pre-compressed to a percentage of the overall supported mass (say 80%) therefore minimising deflection during construction (deflection only occurs after the pre-compression has been exceeded)
- The boxes can be neutralised, replaced or inserted after construction. To achieve this all boxes must be accessible. This should be considered in the scheme design stage of the building
- By nesting springs (small spring inside a big spring) the **CDM-ISO-CHR** pre-compressed spring boxes can be fine tuned to take specific loads
- The spring boxes can be compressed to the block limit of the spring without significant plastic deformation to the box
- The elastomer layers (EL) either side of the steel box elements minimise the effect of the spring coil resonances, and provide a more uniform load transfer between the contact surface with the structure below and above



Nesting of the springs: the 'tuning' spring can be placed into the 'structural' spring



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